



Dolphin® 9500/9550 Mobile Computer



Preliminary
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User's Guide



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Introduction

Congratulations on the purchase of your new Dolphin® 9500/9550 mobile computer. You have made a wise choice in selecting the Dolphin, a device known worldwide for its ergonomic shape, light weight, rugged design and single-handed data collection features.

The patented shape of the Dolphin 9500 allows true, one-handed operation and fits either hand comfortably, while the Dolphin 9550's integrated pistol-grip handle provides comfortable ergonomics and intuitive point-and-shoot scanning for extended periods of use.

Built to last, the Dolphin's durably built case houses a 400MHz RISC processor and the Microsoft® Pocket PC operating system that is easily programmable with standard programming tools, eMbedded Visual Tools (includes eMbedded Visual C/C++® and eMbedded Visual Basic®) or Visual Studio.NET (Visual Basic.NET or Visual C#.NET). The terminal provides ample, secure storage for data and applications with its 64 MB RAM and 32 MB FLASH memory configuration. Up to 256MB additional memory for data storage is available with an optional secure digital card.

The Dolphin 9500/9550 terminals are some of the most durable devices available, designed to withstand repeated five-foot drops onto a concrete floor. The terminal also resists extreme temperatures, humidity levels and dust conditions.

The Dolphin's features also includes: long-lasting Lithium Ion (Li-Ion) batteries; a large easy-to-read 240 x 320 1/4 VGA backlit display that can display text or graphics; a low-power, high-resolution digital image engine for omni-directional and auto-discrimination decoding of linear bar codes; Stacked Linear and matrix codes and provides OCR (Optical Character Recognition) functionality. The Dolphin 9500/9550 also has optional co-existing 802.11b and/or Bluetooth radios for real-time data collection applications.

Load up the Dolphin with your custom software application and the ultimate data collection solution for your business fits in the palm of your hand.

The Dolphin 9500/9550 Mobile Computer User Guide is designed to provide you with the information you need to make the most of your new Dolphin terminal. Sections on the basics, safety, battery use, accessories, and service make this guide a complete source of information.

Safety

The Dolphin 9500/9550 mobile computer meets or exceeds the requirements of all applicable standards organizations for safe operation. However, as with any electrical equipment, the best way to ensure safe operation is to know the possible risks.

The following safety guidelines are designed to protect both you and others around you. Please read them carefully before using your Dolphin terminal.

Required Safety Labels

Batch Terminals

The following is the required safety label that appears on the back panel of Dolphin 9500/9550 batch terminals equipped with an imager:



Regulatory and Safety Approvals For Dolphin 9500/9550 Terminals

Parameter	Specifications
U.S.A	FCC Part 15, Class B
Canada	IEC 0003
European Community	EN 55022 (CISPR 22) Class B EN60950 EN60825-1 EN55024: 1998

CE The CE mark on the product indicates that the system has been tested to and conforms with the provisions noted within the 89/336/EEC Electromagnetic Compatibility Directive and the 73/23/EEC Low Voltage Directive.

For further CE information please contact:
Hand Held Products, Inc.
Nijverheidsweg 9
5627 BT Eindhoven
The Netherlands

HHP shall not be liable for use of our product with equipment (i.e., power supplies, personal computers, etc.) that is not CE marked and does not comply with the Low Voltage Directive.

Dolphin 9500/9550 RF Terminal with 802.11b or Bluetooth Radio

The Dolphin® 9500/9550 RF terminal is designed to comply with the most current applicable standards on safe levels of RF energy developed by the Institute of Electrical and Electronics Engineers (IEEE) and the American National Standards Institute (ANSI) and has been recommended for adoption by the Federal Communications Commission (FCC).

The following is the the required safety label that appears on the back panel of the Dolphin 9500/9550 RF terminals equipped with a 802.11b radio and an imager:



The following is the required safety label that appears on the back panel of the Dolphin 9500/9550 RF terminals equipped with a Bluetooth Radio and an imager.



FCC Compliance

Dolphin 9500/9550 Batch Terminal

The Dolphin 9500/9550 Batch complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

1. Devices may not cause harmful interference.
2. Devices must accept any interference received, including interference that may cause undesired operation.

Dolphin 9500/9550 RF Terminal with 802.11b or Bluetooth Radio

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

In accordance with FCC 15.21, changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet helpful: "Something About Interference." This is available at FCC local regional offices. Our company is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by our company. The correction will be the responsibility of the user. Use only shielded data cables with this system.

This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

Canadian Compliance

This Class B digital apparatus complies with Canadian ICES-003.

Operation is subject to the following two conditions: 1. Devices may not cause harmful interference. 2. Devices must accept any interference received, including interference that may cause undesired operation. To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Cet appareil numérique de la Classe B est conforme à la norme NMB-003 du Canada.

RF Exposure

"For body worn operations, to maintain compliance with FCC RF exposure guidelines, use only accessories that contain no metallic components and provide a separation distance of 15mm (0.6 inches) to the body. Use of other accessories may violate FCC RF exposure guidelines and should be avoided."

RF Approvals	
U.S.A	FCC Part 15.247
Canada	RSS 210 Certified
Europe	ETS 300 328 Certified
Mexico	Telecom RCPHAD002-485

Dolphin 9500/9550 RF Bluetooth R&TTE Compliance Statement

The HHP Dolphin 9500RF and Dolphin 9550RF are in conformity with all essential requirements of the R&TTE Directive (1999/5/EC). This equipment has been assessed to the following standards:

Parameter	Specification
R&TTE	EN 300 328-2:2000 EN 301 489-1 (August 2000) EN 301 489-17 (Sept 2000) EN 60950: 1992 Incl Amdt 1-4,11 EN 50361: 2001

This product is marked with **CE 681!** in accordance with the Class II product requirements specified in the R&TTE Directive, 1999/5/EC.

The equipment is intended for use throughout the European Community, but it's authorisation for use in France is restricted as follows:

PAN European Frequency Range: 2.402 - 2.480 GHz

Restricted Frequency Range for use in France: 2.448 - 2.480 GHz

Dolphin 9500/9550 RF 802.11b R&TTE Compliance Statement

The HHP Dolphin 9500RF and Dolphin 9550RF are in conformity with all essential requirements of the R&TTE Directive (1999/5/EC). This equipment has been assessed to the following standards:

Parameter	Specification
R&TTE	EN 300 328-2:2000 EN 301 489-1 (August 2000) EN 301 489-17 (Sept 2000) EN 60950: 1992 Incl Amdt 1-4,11 EN 50361: 2001

This product is marked with **CE 681** in accordance with the Class II product requirements specified in the R&TTE Directive, 1999/5/EC.

The equipment is intended for use throughout the European Community, but its authorization for use in France is restricted as follows:

PAN European Frequency Range: 2.402 - 2.480 GHz

Restricted Frequency Range for use in France: 2.448 - 2.480 GHz

Pacemakers, Hearing Aids and Other Electrically Powered Devices

Most manufacturers of medical devices adhere to the IEC 601-1-2 standard. This standard requires devices to operate properly in an EM Field with a strength of 3V/m over a frequency range of 26 to 1000MHz.

The maximum allowable field strength emitted by the Dolphin is 0.3V/m according to Subpart B of Part 1 of the FCC rules. Therefore, the Dolphin RF will have no effect on medical devices that meet the IEC specification.

Microwaves

The radio in the Dolphin RF terminal operates on the same frequency band as a microwave oven. Therefore, if you use a microwave within range of the Dolphin RF terminal you may notice performance degradation in your wireless network. However, both your microwave and your wireless network will continue to function.

The Dolphin Batch terminal does not contain a radio, and therefore, is not affected by microwave ovens.

Batteries

The following are general guidelines for the safe use and disposal of batteries:

- Use only the battery supplied with your Dolphin or a replacement battery supplied, recommended, or approved by HHP.
- Replace a defective battery immediately as it could damage the Dolphin terminal.
- Never throw a used battery in the trash. It contains heavy metals and should be recycled according to local guidelines.
- Don't short-circuit a battery or throw it into a fire. It can explode and cause severe personal injury.

-
- Excessive discharge damages a battery. Recharge the battery when your Dolphin indicates low battery power.
 - Although your battery can be recharged many times, it will eventually be depleted. Replace it after the battery is unable to hold an adequate charge.
 - If you are not sure the battery or charger is working properly, please send it to HHP or an authorized HHP service center, for inspection.

The Dolphin hand held computer meets or exceeds all applicable standards and has been manufactured to the highest level of quality.

Care and Cleaning of the Dolphin 9500/9550

When needed, clean the image engine window and the LCD display with a clean, non-abrasive, lint-free cloth.



Getting Started

The Dolphin 9500/9550 mobile computer/imager is designed for easy, single-handed mobile data collection application. The terminal is equipped with a PXA255 400MHz RISC processor built to run the Windows® Pocket PC operating system.

Dolphin 9500/9550 computers are available with different types of 2D imagers, wireless radios, and memory configurations to meet most any mobile data collection requirement.

Offered with a memory configuration of 64 MB RAM and 32 MB non-volatile FLASH, the device has three keyboard options and a 240 x 320 pixel, backlit 1/4 VGA display available in color or monochrome.

The Dolphin 9500/9550 platform is equipped with an integrated imager. The imager can take images like shipping manifests, recipient signatures, while at the same time, decode standard linear and two-dimensional symbologies.

Accessories for the Dolphin 9500/9550

The Dolphin 9500/9550 is part of a data collection system that includes accessories specifically designed for mobile, desktop and enterprise operations. Accessories available include serial and networkable communications/charging cradles and vehicle mounted charging/communication cradles.

You can use these accessories with the Dolphin:

Dolphin HomeBase™ Dolphin terminal charging and communication cradle for communicating with host systems through RS-232 serial port or USB port, includes power adapter.

Dolphin Mobile Base for communicating and charging Dolphin terminals in mobile environments; includes cigarette lighter adapter or power cable and mounting bracket.

Mobile Charger Plugs into vehicle cigarette lighter for charging

Dolphin QuadCharger™ Charges four batteries in under four hours.

Dolphin HomeBase Power Adapter Replacement power adapter for Dolphin HomeBase.

Li-Ion Battery Pack 7.4v, 14.8 watt hour Lithium Ion rechargeable battery for the Dolphin.

Charging and Communications Cables USB and serial

Contact your HHP for more information. For details about how to install or use any of these accessories, refer to the documentation provided with the product. Documentation may also maybe downloaded from our website, www.hhp.com.

Dolphin 9500/9550 Models and Options

HHP's family of Dolphin 9500/9550 mobile data collection terminals includes these models:

The **Dolphin 9500 Batch** terminal is a Windows® Pocket PC programmable mobile computer with a unique, ergonomic shape designed for single-handed use. The standard Dolphin 9500 is available with 64 MB RAM and 32 MB FLASH and integrated digital imager. An optional secure digital card offers up to 256MB of additional memory. The terminal's connector supports RS-232 and USB communications, external plug-in scanners, land line modems, and printers. It also features IrDA infrared ports for data communicate to portable printers and IrDA compliant devices.

The **Dolphin 9550 Batch** mobile computer offers the same enhanced productivity features of the Dolphin 9500 terminal with the added convenience of an integrated pistol grip-style form factor for high volume scanning applications.

The **Dolphin 9500 RF** and **Dolphin 9550 RF** terminals integrate the basic functionality of the Batch terminals with the choice of an 802.11b direct sequence radio that allows the terminal to communicate with a host computer via a radio wireless local area network (WLAN).

The Dolphin 9500/9550 WPAN allows Bluetooth communications to Bluetooth enabled devices such as printers, mobile phones, access points, Bluetooth enabled PC's, etc.

Image Engine Options and Bar Code Symbologies Supported

Dolphin 9500/9550 terminals may be equipped with one of three image engines options:

- IT4000 SR: red or green aimer option scans from 2.5 to 12.5 in. (6.3 to 32 cm.)
- IT4000 SF: red or green aimer option scans from 2.1 to 8.3 in. (5 to 21 cm.)

1D symbologies supported are: Code 3 of 9, Interleaved 2 of 5, EAN, Codabar, Code 11, Code 128, Code 93, TLC39, Universal Product Code (UPC), RSS.

2D symbologies supported are: PDF417, MaxiCode, Data Matrix, QR, EAN.UCC, Aztec, Code 49.

Composite codes supported are: RSS-14, CODABLOCK, Aztec Mesa.

OCR codes supported include: OCR A and OCR B.

Postal codes supported include: Postnet and most international 4 state codes, PLANET CODE, BPO 4 STATE, Canadian 4 State, DUTCH POSTAL, AUSTRALIAN 4 STATE, JAPANESE POSTAL.

Using Dolphin 9500/9550 for the First Time

Follow these steps to begin using your Dolphin 9500/9550 terminal.

1. Unpack and check the terminal and documentation.
2. Charge the main battery pack and internal back-up battery.
3. Start the Dolphin mobile computer.
4. Follow the Pocket PC set-up instructions to setup the mobile computer.
5. Verify that the Dolphin 9500/9550 terminal is working properly.

Step 1. Unpack the Carton and Check Its Contents

Inspect the package to see that the following standard items and accessories (if ordered) are included:

- Dolphin 9500/9550 mobile computer
- Battery (7.4v Li-Ion)
- Dolphin 9500/9550 Software Development Kit & User's Guide CD-ROM
- Microsoft companion CD-ROM
- Dolphin 9500 Quick Start Guide

Note: Be sure to keep the original packaging in the event that the Dolphin terminal should need to be returned for service.

Step 2. Charge the Main Battery and Backup Battery

WARNING Use only battery packs provided by HHP. The use of any other battery pack in the Dolphin 9500/9550 terminal will void your warranty and may result in damage to the Dolphin terminal or battery.

The terminal's Li-Ion battery is shipped discharged of all power and must be charged for at least four hours before initial use.

The battery may be charged using the HomeBase, the serial charging cable, or the USB charging cable.

Charging the Battery Using the HomeBase

1. Place the main battery pack in the Dolphin 9500/9550 terminal.
2. Place the terminal in the terminal well of the Dolphin HomeBase. Time to Charge: Four hours for the main battery; 8 hours for the back-up battery.
3. Place the battery in the auxiliary well of the HomeBase to charge.

Charging the Battery Using the Serial/USB Charging Cable

Plug in cables to terminal connector, plug adapter into wall outlet

As the main battery pack charges, the internal back-up battery also charges. The back-up battery maintains the RAM and clock when the terminal's main battery pack is discharged or removed from the terminal.

Removing the Battery Pack

Follow these steps to remove the Dolphin battery pack.

1. Hold the Dolphin with the front panel (keyboard) facing down.
2. On the Dolphin 9500/9550 terminal, remove the handstrap by pushing its clip down and forward to unhook it from the terminal; move the strap away from the battery compartment.
3. Push the locking tab on the battery pack up and pull the battery out from the Dolphin terminal with a hinging motion.

Installing the Battery Pack

Follow these steps to install the Dolphin 9500/9550 battery pack.

1. The Dolphin 9500/9550 ships with the handstrap installed. Hold the terminal with the front panel (keyboard) facing down. Push the clip of the handstrap down and away from the terminal to unhook it; move the strap up and away from the battery compartment.
2. Insert the end without the locking tab into the top of the battery opening and snap the battery into place with a hinging motion. Press the battery into the well until the clip is engaged. The battery case serves as the back cover of the Dolphin.
3. Reattach the handstrap by positioning it down over the battery case and sliding the clip back into the place at the bottom end of the Dolphin 9500/9550.

Step 3. Start the Dolphin 9500/9550 Mobile Computer

Follow these steps to start your Dolphin 9500/9550 mobile computer.

1. Install the charged battery pack in the Dolphin.
2. The red LED will come on and the green LED will blink for approximately three seconds.
NOTE: DO NOT PRESS ANY KEYS WHILE THE TERMINAL IS BOOTING UP.
3. The terminal will initialize and will display the HHP splash screen for a few seconds.
4. When the Welcome screen shown below displays, follow the screen prompts to set up the Dolphin mobile computer.



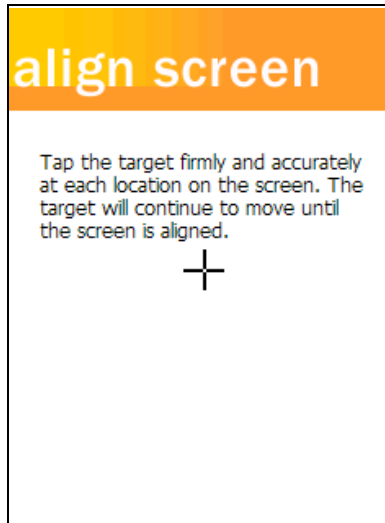
Dolphin 9500/9550 Splash Screen

Step 4. Align the Screen and Set the Time Zone

Aligning the Screen

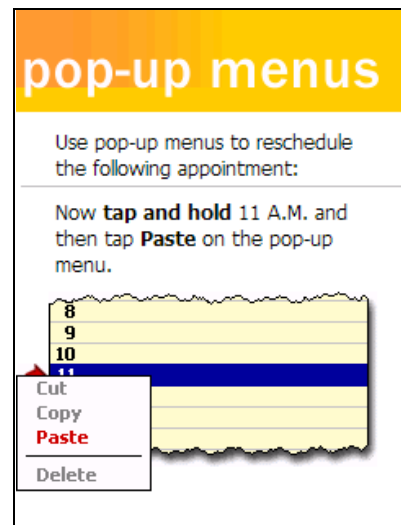
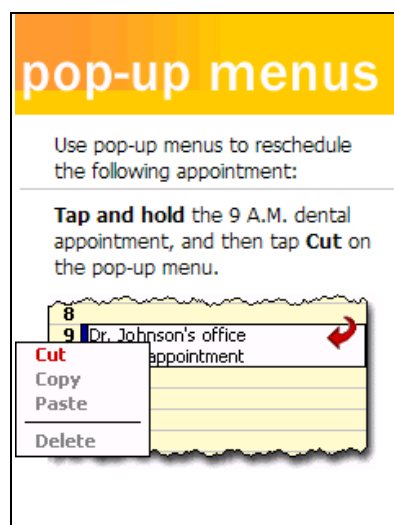
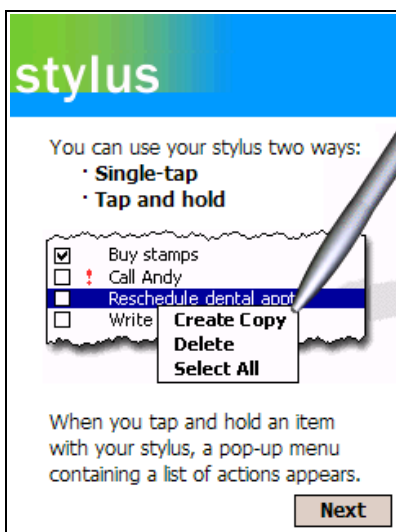
You will be prompted to align the screen after a hard reset. Alignment can also be performed by going to **Start>Settings** and then choosing "Screen" on the "Systems" tab. Follow the directions on the screen to align the screen:

- After the Welcome splash screen appears, you will be prompted to calibrate the screen. The Dolphin 9500/9550 terminal displays a cross-hair target and a message to "Tap the target firmly.....".



Tapping the Target

- Use the stylus shipped with your Dolphin mobile computer. Alignment should always be performed with a stylus designed for touchscreen applications. The small point is required for accurate calibration.
- The stylus should be oriented at a 90 degree angle to the screen surface. Press the stylus firmly into the center of the cross-hair target and release. Do not "double-tap" the target. You will be prompted to repeat this process for a total of five targets.
- After aligning the screen, follow the directions on the screen which take you through a simple exercise showing how to use the stylus and pop-up menus.

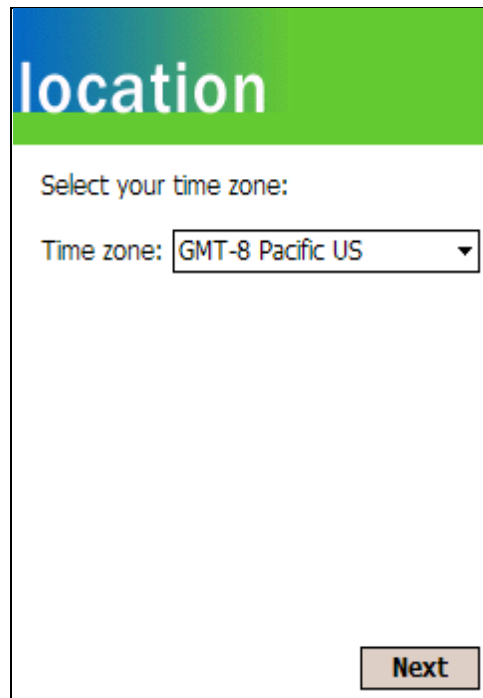


Using Pop-Up Menus

Note: HHP recommends using screen protectors for Dolphin 9500/9550 terminals; especially for those terminals used within applications that require high-volume interfacing with the touch display. Screen protectors will help prevent damage to the touch panel display and are easily installed over the display. Screen protectors can be purchased at any major computer retail store.

Setting the Time Zone

After screen alignment is completed, the Location screen shown below displays. Use the drop-down menu to set your time zone, and tap Next.

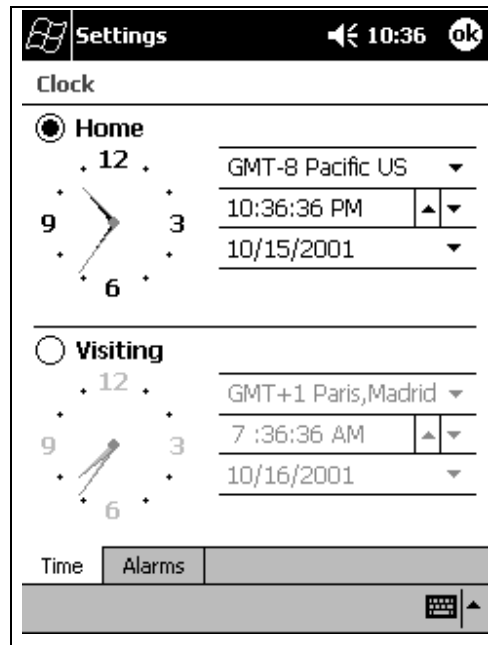


Setting Time Zone Screen

After setting the time zone, you are finished with the initial setup of your Dolphin mobile computer.

Setting the Time and Date

The Time and Date screen does not display after setting the time zone. Go to Start>Settings>Systems Tab>Clock to set the date and time after a hard reset.



Setting Time and Date

Step 5. Verifying that Dolphin 9500/9550 is Working Properly

After you have completed the initial setup and set the time and date, the Dolphin 9500/9550 terminal is ready to use. Choose the IMAGE DEMO or SCAN DEMO from the Start Menu to verify that the terminal is operating properly and to test the imaging functionality.

To take an image:

1. Touch the <Start> button and tap HHP Demos.
2. Select IMAGE DEMO.
3. Press the <SCAN> button and the image you take will appear on the terminal's screen.
4. Touch <ESCAPE> to go back to the main menu.

To scan a bar code:

1. Touch the <Start> button and tap HHP Demos.
2. Select SCAN DEMO.
3. Press the <SCAN> button, aim the terminal at a bar code and the red SCAN LED will illuminate. The green SCAN LED will illuminate and the terminal will beep when a good scan is obtained. Information about the bar code scanned will appear on the screen.
4. Press <ESCAPE> to exit the demo and return to the main menu.

Putting the Dolphin Into Suspend Mode

To conserve power, press the Power key to put the Dolphin terminal into suspend mode. The terminal may also go into “suspend mode” when it is inactive for a programmed period of time, as defined by your application. Press the SCAN key to wake the Dolphin terminal from suspend to continue normal operations.

The Dolphin terminal also goes into sleep mode if you remove the main battery pack. To wake the Dolphin terminal from suspend mode, install a charged battery and press the SCAN key.

WARNING If the main battery and back-up battery are ever fully discharged of power, the terminal will perform a hard reset when power is restored. The terminal will be restored to its original state. All data stored in RAM memory will be lost.

Resetting the Dolphin (Hard Reset)

Under some conditions, you may need to reset the Dolphin 9500/9550 terminal with a hard reset. These may include:

- Resetting the operating system
- Resetting the terminal back to factory defaults
- Resetting the terminal after a bootloader, keyboard, and kernel upgrade

To perform a hard reset:

1. Press and hold the Control (CTRL) and the Escape (ESC) keys for approximately 10 seconds.
2. Release the keys and the terminal will reset. The red LED will come on and the green LED will blink for approximately 3 seconds.
3. The terminal will need to be reconfigured. Refer to [Start the Dolphin 9500/9550 Mobile Computer](#) on page 2-3.

Resetting the Dolphin (Soft Reset)

There are times when you may need to warm boot the Dolphin 9500/9550 terminal, such as after loading a software application that requires a warm boot after installing new software. To warm boot the Dolphin 9500/9550 terminal:

1. Press and hold the Control (CTRL) and the SHIFT (SFT) keys for approximately 10 seconds, then release.
2. Release the keys and the terminal will reset. The red LED will come on and the green LED will blink for approximately 3 seconds.
3. The terminal will initialize and after a few seconds will display the Today screen.

Dolphin 9500/9550 Overview

System Features

Processor

The Dolphin 9500/9550 terminal is equipped with an Intel® X-Scale 400MHz RISC microprocessor that runs on a 100 MHz BUS and is one of the most powerful Pocket PC platform on the market.

Operating System

Microsoft® Pocket PC is a compact, highly efficient, scalable operating system. Its open architecture facilitates development of applications for energy-efficient data collection devices like the Dolphin 9500/9550 terminal.

Memory

Main Board

The memory configuration for the Dolphin 9500/9550 terminals is 64 MB RAM and 32 MB non-volatile FLASH.

Secure Digital Card (SD)

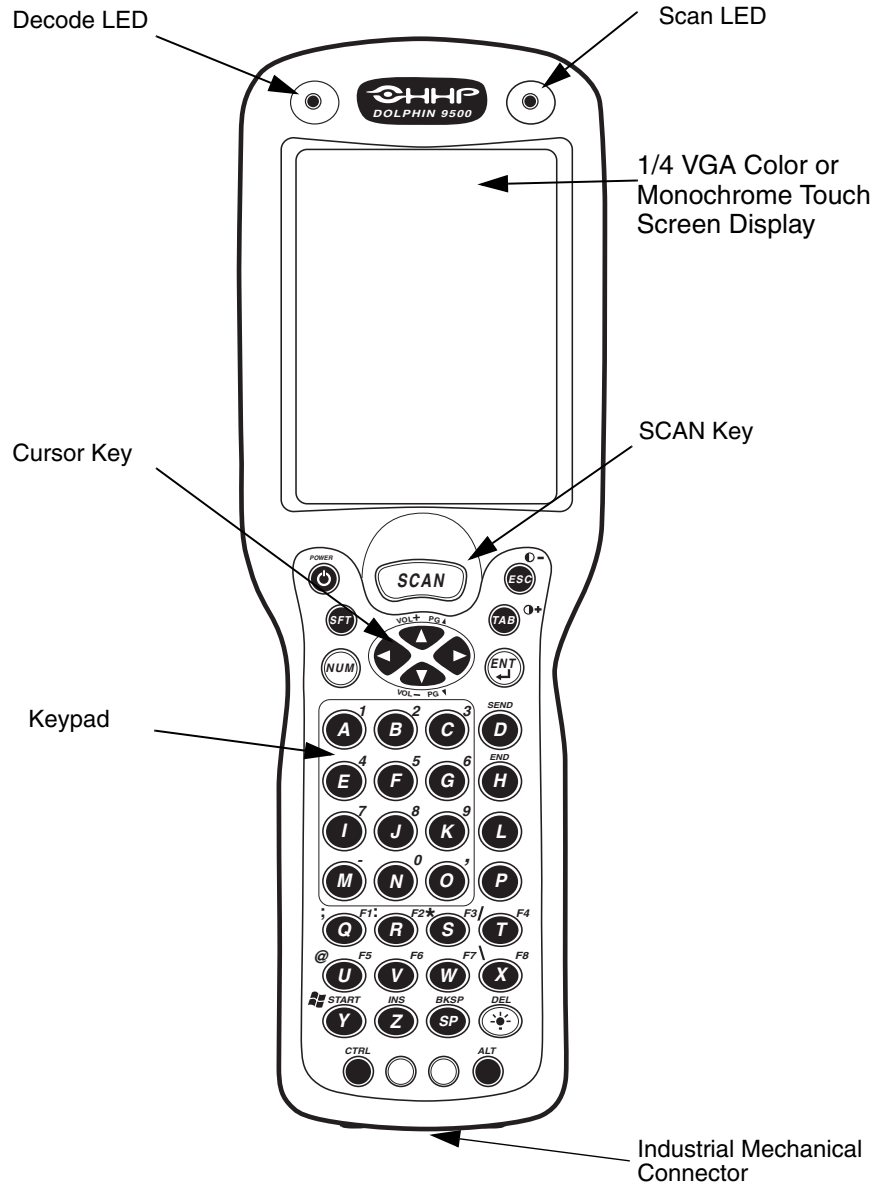
Dolphin 9500/9550 terminals have one user accessible secure digital (SD) card interface for additional application and data storage capacity. Additional secure digital upgrades of 64 MB, 128 MB, and 256 MB are available. The secure digital card socket is user accessible while preserving the terminal's environmental rating.

Wireless Radio Options

Radio options for Dolphin 9500/9550 terminals include an integrated 802.11b or integrated Bluetooth wireless network adapter.

Front Panel Features

This section describes features on the Dolphin 9500/9550 terminal front panel.



LEDs

The red light emitting diode (LED) located at the upper right corner of the LCD display is the SCAN LED. This LED illuminates when the user presses the SCAN key and activates the scan engine. The green LED located at the upper left corner of the LCD display is the DECODE LED. This LED illuminates when the bar code software successfully decodes a bar code. Both LEDs are software programmable.

1/4 VGA Display

The Dolphin 9500/9550 screen is a 240 x 320 pixel 1/4 VGA industrial protective lens display. The electroluminescent backlight allows you to view the display in low light conditions. To conserve power, the backlight may be programmed to automatically turn off after a prescribed amount of time. The contrast may be adjusted with the contrast keys. The Dolphin 9500/9550 display is equipped with a touchscreen that can be activated with a stylus or finger.

SCAN Key

The SCAN key is centrally located for easy use with the right or the left hand. On the 9550 terminal, the SCAN key operates as an On or system wakeup control; scanning is activated with the handle trigger.

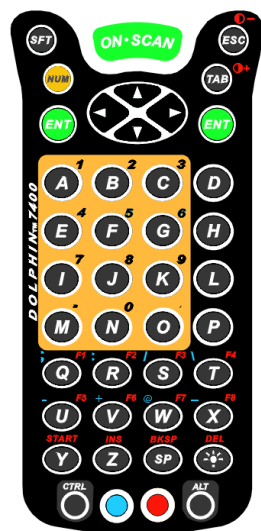
Cursor Keys

The centrally located cursor keys allow full Windows® Pocket PC navigation.

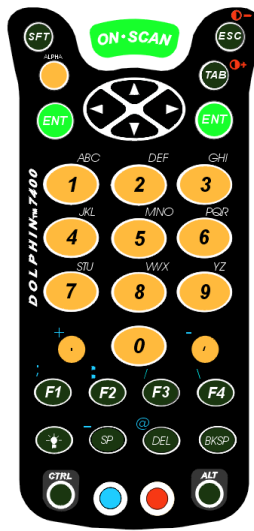
Keyboard

The Dolphin 9500/9550 terminal's keyboard features durable keys and is backlit for easy use in dark and dim lighting conditions. The keyboard's silver background enhances the readability of the numeric keys. The centrally located SCAN key and other important keys allow for easy imaging, bar code scanning and application navigation. All keyboard versions are suited for right-handed and left-handed use.

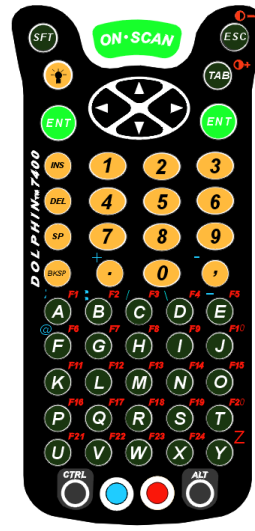
There are three keyboard options for the Dolphin 9500/9550 terminals: 43-key alpha/numeric, 35-key numeric/alpha and 56-key alpha/numeric.



43-key
alpha/numeric keyboard



35-key numeric/alpha
keyboard



56-key
alpha/numeric keyboard

Back Panel Features

This section describes features on the back panel of the Dolphin 9500/9550 terminal.

Dolphin 9500/9550

All versions of the Dolphin 9500/9550 terminal have similar back panels except for the safety labels specific to how the terminal is equipped.

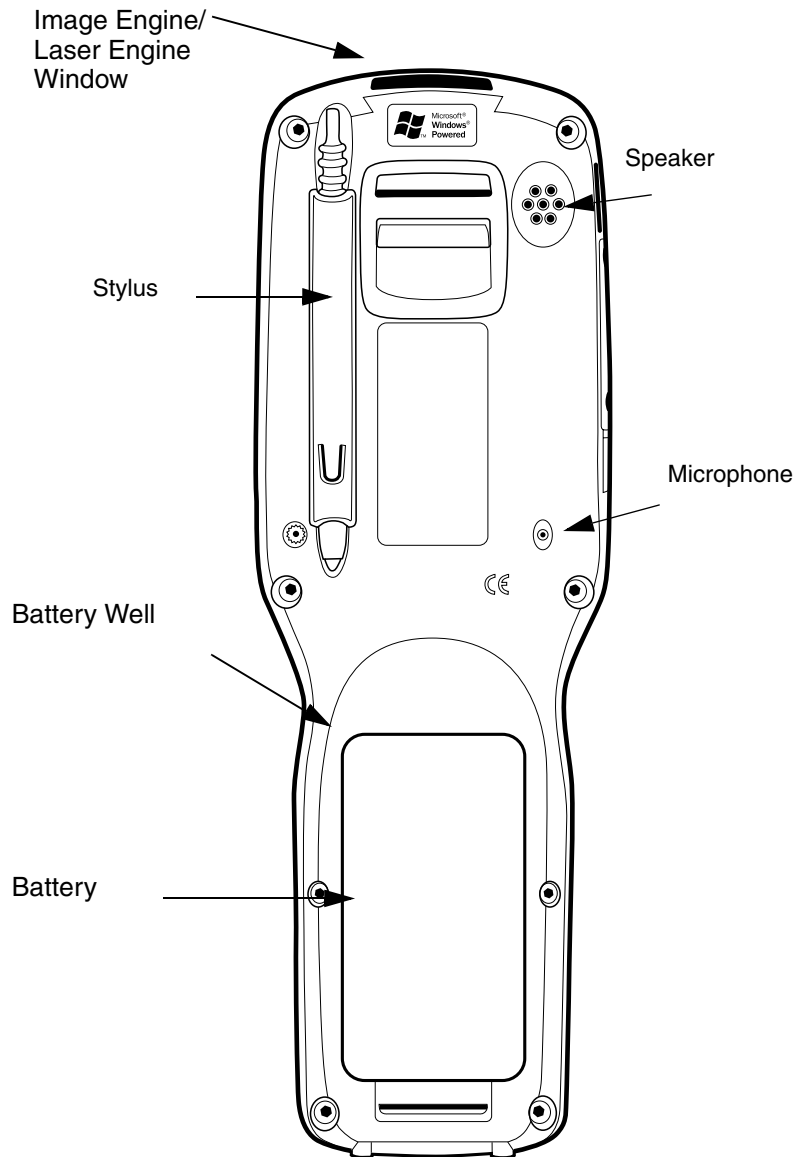


Image Engine

Dolphin 9500/9550 terminals are equipped with an image engine that reads and decodes linear, stacked linear (PDF417) and 2D matrix bar code symbologies. With the latest CMOS-based technology, the engine works like a digital camera and adds functionality and value to the Dolphin 9500/9550 by adding additional capabilities, such as digital image capture, signature capture and reading OCR characters. Digital images taken with the Dolphin 9500/9550 terminal have a maximum image size of 640 x 480 pixels and may have up to a 256 gray scale image definition. File formats supported for image storage include Bitmap (bmp), JPEG (jpg) and Portable Network Graphics (png).

Battery Well

The Battery well is a recessed area on the back of the Dolphin that holds the Li-Ion battery pack.

Hand Strap

The Dolphin 9500 has an integrated elastic hand strap providing a comfortable, secure grip on the terminal. If desired, the strap may be adjusted or removed.

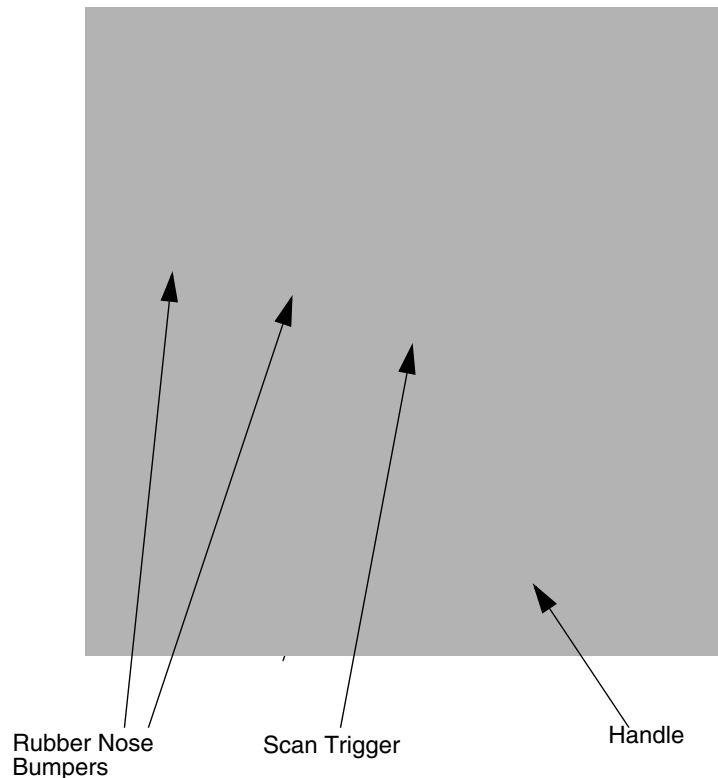
Speaker

The Dolphin 9500/9550 terminal has an internal speaker that sounds audio signals as you scan bar code labels and enter data. The operating frequency range is 500Hz at 71 dB up to 80 dB. The speaker can also be used for playing sounds (e.g., WAV files).

Microphone

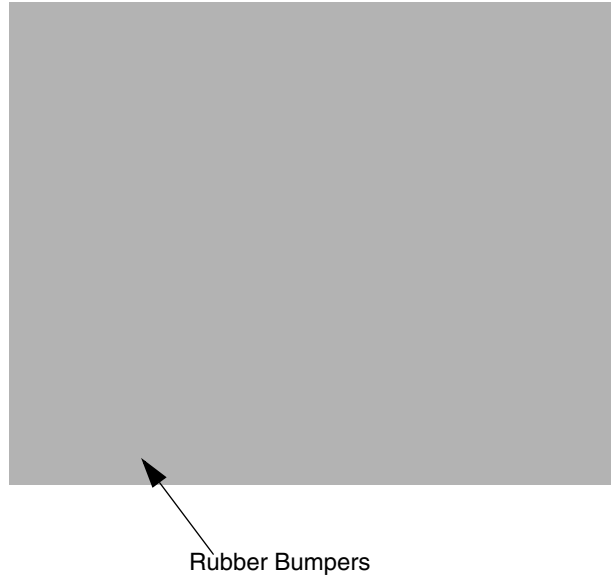
Dolphin 9550

The bottom cover of the Dolphin 9550 terminal is similar to the Dolphin 9500 as described in the previous section with the following exceptions: the pistol-grip handle with imager/scanner trigger and the rubber bumpers. All versions of the Dolphin 9550 terminal have similar bottom covers except for the safety labels specific to how the terminal is equipped.



Rubber Nose Bumpers

Rubber bumpers allow the Dolphin 9550 to rest in a stable, nose-down position when the unit is set on a flat surface by the user.



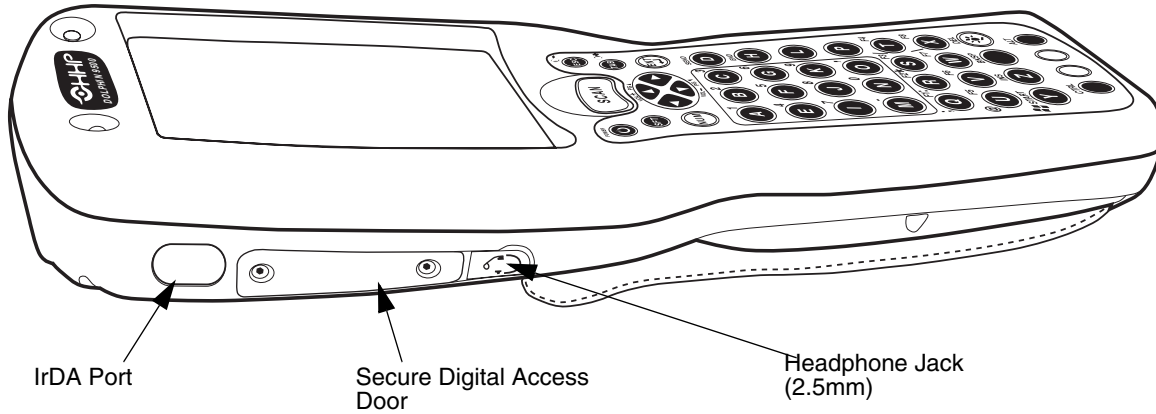
Scan Trigger

The scan trigger provides comfortable two-finger scan activation.

Pistol Grip Handle

The comfortable, ergonomic handle is designed especially for use in rapid, high volume scanning applications and features rubber surface details for improved handle grip, comfort, and shock absorption.

Side Panel Features



IrDA Port

The IrDA (Infrared Communications) Port allows the Dolphin to communicate with IrDA-enabled devices such as PC's, printers, modems, or other Dolphin 9500/9550 terminals. The maximum speed is 115kbps.

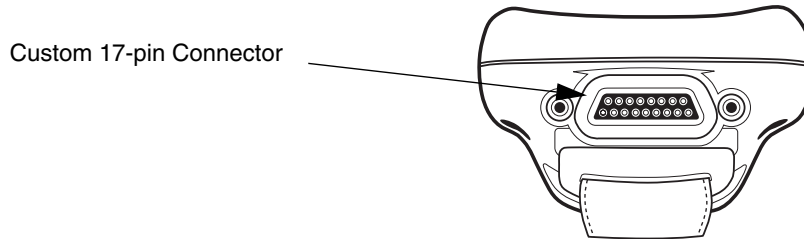
Secure Digital Memory

64, 128, 256 MB memory, user accessible, sealed from moisture and particle intrusion. Secure key store data - read/write data.

Headphone Jack

You may plug in a standard headset for audio/voice.

Bottom Panel Features



Com Port Assignment Table

Com Port 1	Serial
Com Port 2	Bluetooth Module
Com Port 3	Raw Infrared
Com Port 4	GSM Module
Com Port 5-9	Bluetooth Ports

Industrial Connector

USB/RS-232

The industry-standard RS-232 port allows the user to connect with peripherals, such as printers, serial modems and desktop computers for USB and serial communication to the Dolphin 9500/9550 terminal. The maximum RS-232 speed is 115kbps with seven baud rate settings. The USB communications runs at 2 Mbps. The port also supports power so that you can charge the terminal.

9.5 VDC Power Port

This port connects the Dolphin 9500/9550 to DC power for powering peripheral devices and charging the main and backup batteries.

Power is fed through the 17-pin communications port.

Batteries

CAUTION: Use only the 7.4V battery packs provided by HHP. The use of any other battery pack in the Dolphin 9500/9550 terminal will void your warranty and may result in damage to the Dolphin terminal or battery.

There are two batteries in the Dolphin:

Internal Backup Battery Located inside the Dolphin, this battery backs up the RAM and clock when the Li-Ion main battery is discharged or removed from the terminal. The internal backup battery is not user replaceable.

Li-Ion Battery Pack The battery pack is the primary power source for operating the Dolphin terminal.

Internal Li-Ion Backup Battery

The Dolphin's internal backup battery prevents the terminal from being reset if you need to remove and replace the main battery pack. The battery retains RAM data and allows the real-time clock to remain operational for up to 30 minutes when the battery pack is removed.

If the backup battery becomes fully discharged of power after the initial charge cycle, it will require a minimum of 10 hours of charging time to perform and maintain the system as described above.

The internal backup battery is charged by the Dolphin's main battery pack when an external power source such as the Dolphin HomeBase, is not available. If the terminal is left without the main battery pack for more than 30 minutes, the internal backup battery will need to be recharged.

Note: Data and programs stored in FLASH remain safe even if the internal backup battery fails. However, you must reset the real-time clock using the Pocket PC Time and Date function.

Follow these guidelines to maximize the life of the Dolphin's backup battery:

- Keep a charged Li-Ion battery pack in the Dolphin. The internal battery will prematurely discharge if there is not at least a partially charged battery in the terminal.
- Put the Dolphin in the HomeBase connected to power when the terminal is not in use.

Main Battery Pack

The 7.4V, 14.8 watt hour Lithium Ion (Li-Ion) battery pack is the primary power source for the Dolphin.

The Li-Ion battery is designed to operate in a temperature range of -10 to 50°C (14 to 122°F). For maximum performance, charge the batteries between 10 and 35°C (50 and 95°F).

Managing Battery Power

Data and files saved on the Dolphin 9500/9550 terminal may be stored in RAM, so it is important to maintain a continuous power supply to the terminal. When the main battery pack becomes low, the Low Battery Charge icon will appear in the notification tray at the top of the screen. The Critical icon will appear when the battery is critically low. There is also a Low Battery icon that will appear when the back-up battery is low.

Letting the back-up battery become fully discharged will cause the terminal to lose all data in RAM. Therefore, you should keep a charged battery pack in the Dolphin at all times to conserve the internal back-up battery. When you remove a battery pack, insert another charged pack in the Dolphin. The internal battery will prematurely discharge if there is not at least a partially charged battery in the terminal.

The battery status indicator displays in the notification tray when the battery is low or critically low. If there is no indicator, the battery is adequately charged.

If the main battery is low and the terminal is in suspend mode, pressing the SCAN or Power button will not wake up the Dolphin 9500/9550 terminal; you must replace the discharged battery with a fully charged battery.

Setting Critical and Low Battery Points

The Dolphin 9500/9550 may be programmed to display warnings when the battery reaches critical and low battery points. There are two entries defined in the registry. The specific settings are:

```
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Power]
```

```
"CriticalBatt"=dword:a
```

```
"LowBatt"=dword:19
```

```
"CriticalBatt"=dword:F
```

This sets the Critical Battery point to 15 percent (a hex = 15 decimal). The critical battery is the point at which the customer is warned that the battery charge is very low. This warning will be posted every 3 minutes until the situation is corrected.

```
"LowBatt"=dword:19
```

This sets the Low battery point to 25 percent (19 hex = 25 decimal). The low battery setting is the point at which the user is alerted that the battery is low. The user is notified only once for a low battery.

These are the default values. Developers can set these parameters from 0 (no warning at all) to 99 (would nearly always warn). The warnings do not appear when the terminal is on external power.

Checking Battery Power

The Battery Status screen displays information about current battery status and allows you to set options that can conserve battery power.

To open the Battery Status screen:

1. Select **Start>Settings>System>Power**.
2. Select your preferences.
3. Tap OK to save the changes and exit.

Charging the Battery Pack

You can charge the Dolphin's main battery pack with one of the following methods:

- Place the battery pack in the Dolphin 9500/9550 terminal and then place the terminal in the terminal well of a HomeBase or Mobile Base.
- Place the battery pack in the Dolphin Quad Battery Charger.
- Place the battery back in the Auxiliary Battery Well of the HomeBase.
- Connect a charging/communication cable to the Dolphin 9500/9550 terminal and plug into a power outlet.

Storing Batteries

To maintain optimal performance from batteries, follow the guidelines below when storing them:

Avoid storing batteries outside the specified range of -4 to 104° F (-20 to 40°C) or in extremely high humidity.

For prolonged storage, do not keep batteries stored in a charger that is connected to a power source.

Using the Dolphin 9500/9550 Mobile Computer

Entering Data

To enter data, you may:

- Use the 35-key, 43-key or 56-key keypads
- Use the soft input panel to enter typed text, either by using the soft keyboard or other input method.
- Write directly on the screen.
- Draw pictures on the screen.
- Collect images or scan bar code data into data fields
- Use Microsoft® ActiveSync® to synchronize or copy information from your desktop computer to your device. For more information on ActiveSync, see ActiveSync Help on your desktop computer.

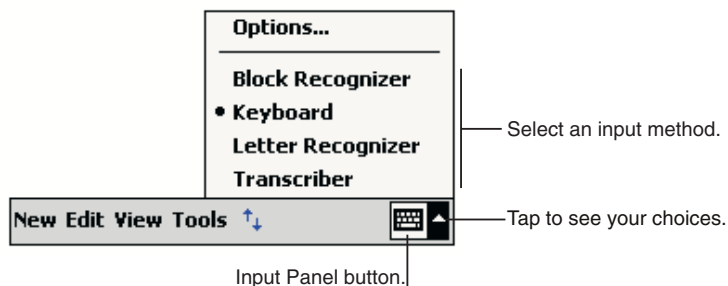
Entering Text Using the Input Panel

HHP recommends using screen protectors for Dolphin 9500/9550 terminals to protect the input panel display; especially for those terminals used for applications that require high-volume interfacing with the touch display. Screen protectors will help prevent damage to the touch panel display and are easily installed over the display. Screen protectors can be purchased at any major computer retail store.

Note: For touch screen input, only use a stylus or your finger. Use of other objects, such as paper clips, pencils, or ink pens can damage the input panel and will void the warranty.

Use the input panel to enter information in any program on the Dolphin mobile computer. You can either type using the soft keyboard or write using Letter Recognizer, Block Recognizer, or Transcriber (if installed from the Dolphin 9500/9550 Companion CD). In either case, the characters appear as typed text on the screen.

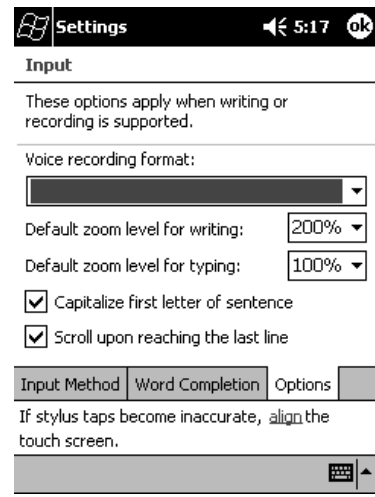
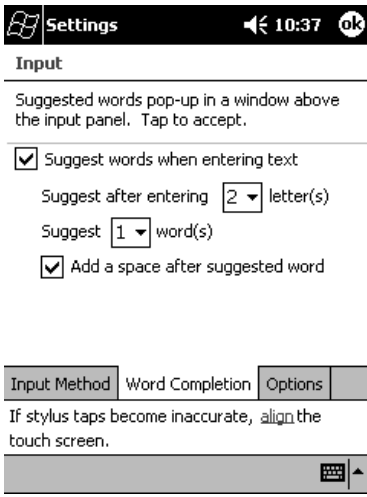
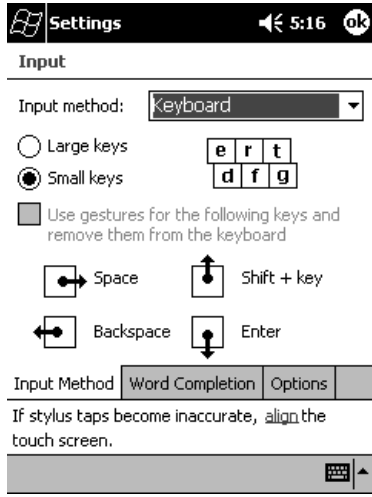
To show or hide the input panel, tap the Input Panel button. Tap the arrow next to the Input Panel button to see your choices.



Input Panel Button

When you use the input panel, your terminal anticipates the word you are typing or writing and displays it above the input panel. When you tap the displayed word, it is inserted into your text at the insertion point. The more you use your Dolphin 9500/9550 terminal, the more words it learns to anticipate.

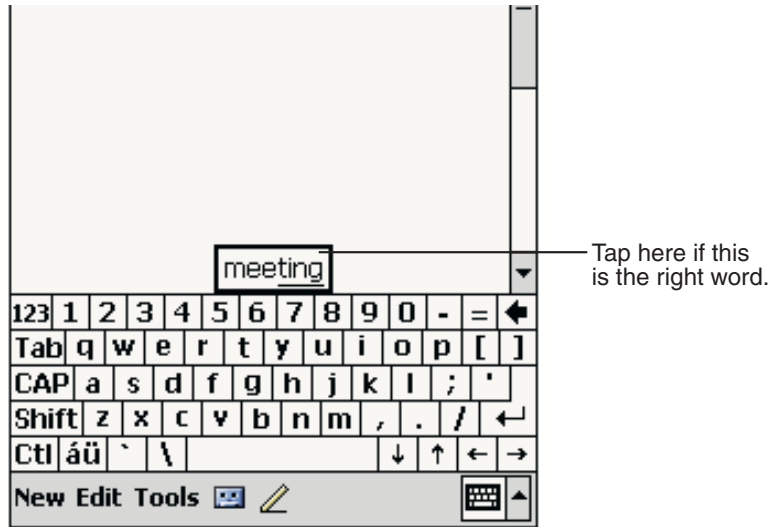
To change word suggestion options, such as the number of words suggested at one time, tap **Start> Settings>Personal >Input> Word Completion** tab.



Input Panel Options

Using the Soft Keyboard:

1. Tap the arrow next to the Input Panel button and then **Keyboard**.
2. On the soft keyboard that is displayed, tap the keys with your stylus.

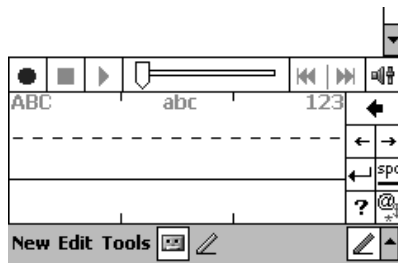


Soft Keyboard

Using the Letter Recognizer

With Letter Recognizer you can write letters using the stylus just as you would on paper.

1. Tap the arrow next to the Input Panel button and then **Letter Recognizer**.
2. Write a letter in the box.



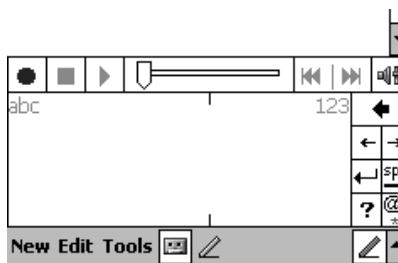
Letter Recognizer

When you write a letter, it is converted to typed text that appears on the screen. For specific instructions on using Letter Recognizer, with Letter Recognizer open, tap the question mark next to the writing area.

Using the Block Recognizer:

With Block Recognizer you can input character strokes using the stylus that are similar to those used on other devices.

1. Tap the arrow next to the Input Panel button and then **Block Recognizer**.
2. Write a letter in the box.



Block Recognizer

When you write a letter, it is converted to typed text that appears on the screen. For specific instructions on using Block Recognizer, with Block Recognizer open, tap the question mark next to the writing area.

Selecting Text

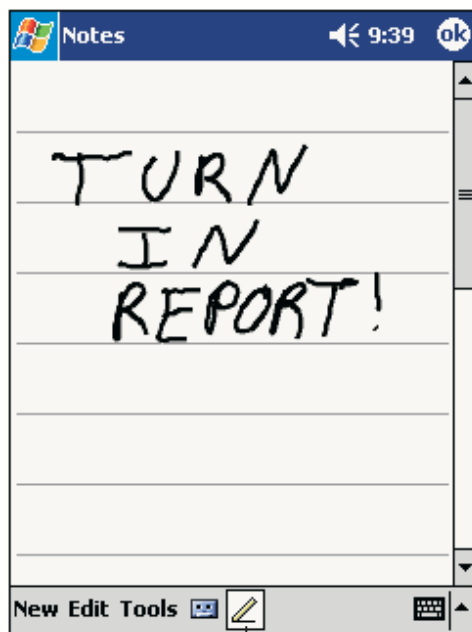
To edit or format typed text, select it by dragging the stylus across the text.

You can cut, copy, and paste text by tapping and holding the selected words and then tapping an editing command on the pop-up menu, or by tapping the command on the **Edit** menu.

Writing on the Screen

In any program that accepts writing, such as the Notes program, and in the **Notes** tab in Calendar, Contacts, and Tasks, you can use your stylus to write directly on the screen as you would on paper. You can edit and format what you've written and convert the information to text at a later time.

To write on the screen, tap the **Pen** button to switch to writing mode. This action displays lines on the screen to help you write.



Tap the Pen button and use your stylus like a pen.

Writing on the Screen

Note: Some programs that accept writing may not have the Pen button. See the documentation for that program to find out how to switch to writing mode.

To select writing:

If you want to edit or format writing, you must select it first.

1. Tap and hold the stylus next to the text you want to select until the insertion point appears.
2. Without lifting, drag the stylus across the text you want to select.

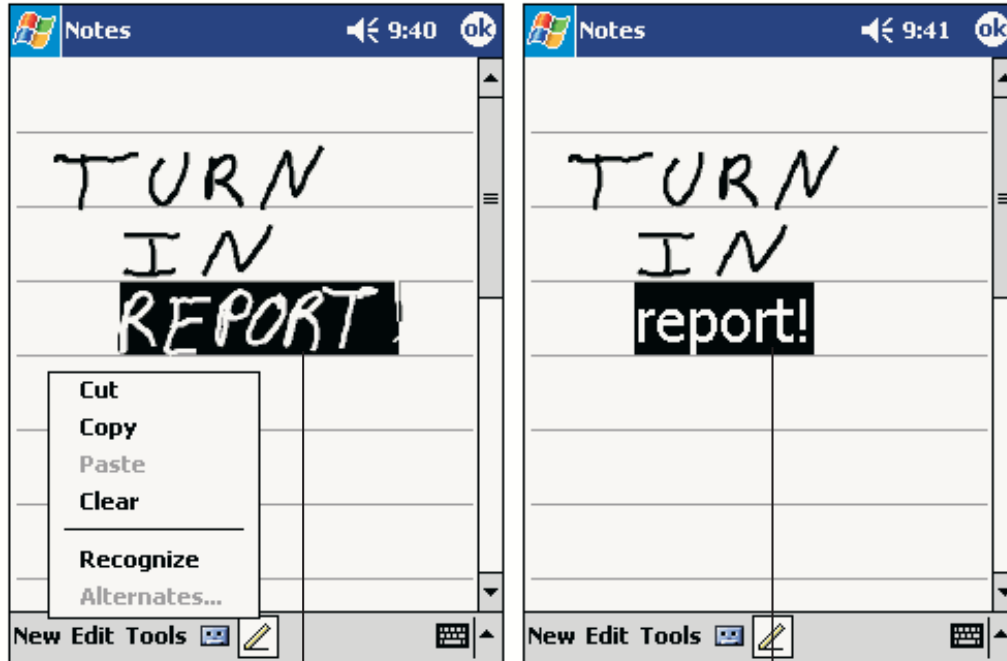
If you accidentally write on the screen, tap **Tools**, then **Undo** and try again. You can also select text by tapping the **Pen** button to deselect it and then dragging the stylus across the screen.

You can cut, copy, and paste written text in the same way you work with typed text: tap and hold the selected words and then tap an editing command on the pop-up menu, or tap the command on the **Edit** menu.

Convert Writing to Text:

To convert writing to text, tap **Tools** and then **Recognize**.

If you want to convert only certain words, select them before tapping **Recognize** on the **Tools** menu (or tap and hold the selected words and then tap **Recognize** on the pop-up menu). If a word is not recognized, it is left as writing.

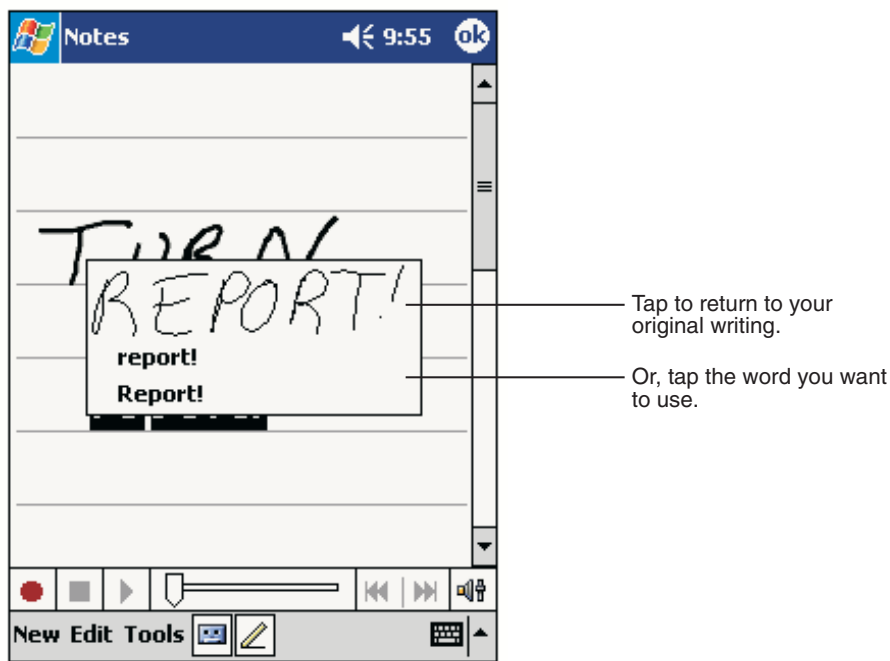


Select the text you want to convert and tap Recognize on the pop-up menu.

The writing is turned into text.

Writing on the Screen

If the conversion is incorrect, you can select different words from a list of alternates or return to the original writing. To do so, tap and hold the incorrect word (tap one word at a time). On the pop-up menu, tap **Alternates**. A menu with a list of alternate words appears. Tap the word you want to use, or tap the writing at the top of the menu to return to the original writing.



Alternate List

Tips for Getting Good Recognition

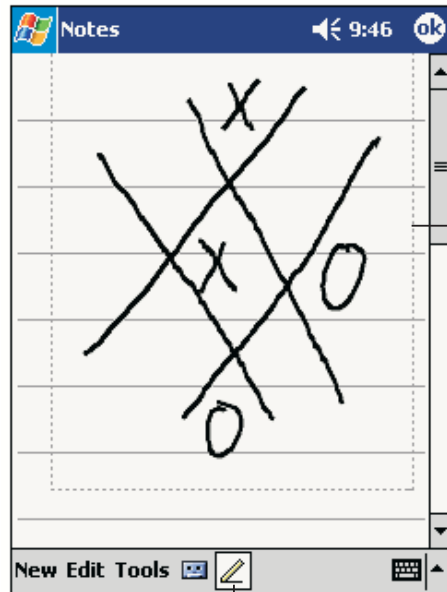
- Write neatly.
- Write on the lines and draw descenders below the line. Write the cross of the “t” and apostrophes below the top line so that they are not confused with the word above. Write periods and commas above the line.
- For better recognition, try increasing the zoom level to 300% using the **Tools** menu.
- Write the letters of a word closely and leave big gaps between words so that the device can easily tell where words begin and end.
- Hyphenated words, foreign words that use special characters such as accents, and some punctuation cannot be converted.
- If you add writing to a word to change it (such as changing a “3” to an “8”) after you attempt to recognize the word, the writing you add will not be included if you attempt to recognize the writing again.

Drawing on the Screen

Drawing on the screen is similar to writing on the screen. The difference between writing and drawing on the screen is how you select items and how they can be edited.

To create a drawing, cross three ruled lines on your first stroke. A drawing box appears. Subsequent strokes in or touching the drawing box become part of the drawing. Drawings that do not cross three ruled lines will be treated as writing.

For example, selected drawings can be resized, while writing cannot.



The drawing box indicates the boundaries of the drawing.

Pen button.

Drawing on the Screen

Note: You may want to change the zoom level so that you can more easily work on or view your drawing. Tap **Tools** and then a zoom level.

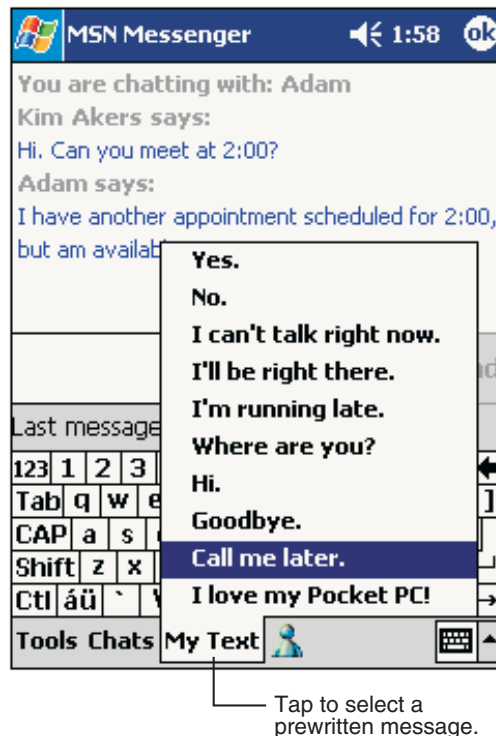
Selecting a Drawing

To edit or format a drawing, tap and hold the stylus on the drawing until the selection handle appears. To select multiple drawings, deselect the Pen button and then drag to select the drawings you want.

You can cut, copy, and paste selected drawings by tapping and holding the selected drawing and then tapping an editing command on the pop-up menu, or by tapping the command on the **Edit** menu. To resize a drawing, make sure the Pen button is not selected, and drag a selection handle.

Using My Text

When using Inbox or MSN Messenger, use My Text to quickly insert preset or frequently used messages into the text entry area. To insert a message, tap **My Text** and tap a message.



Using My Text

Note: You can add text after inserting a My Text message before sending it.

To edit a My Text message, in the **Tools** menu, tap **Edit** and then tap **My Text Messages**. Select the message you wish to edit and make desired changes.

Via the Keyboard

Data can be entered into the Dolphin 9500/9550 terminal via the keyboard. The Dolphin 9500/9550 has three keyboard options: 43-key alpha shifted numeric, 35-key numeric shifted alpha, and 56-key full alpha/numeric.

To enter data, press the appropriate key and the corresponding number or letter appears on the screen.

Refer to [Appendix A](#) for a list of keyboard shortcuts for navigating the keyboard.

Using the Image Engine

Dolphin 9500/9550 terminals are equipped an image reader that reads 1D and 2D bar codes, OCR characters and can capture images, such as signatures and gray scale pictures. The imager features a green aiming beam that is used to aim the image reader against the bar code or item being read.

The terminal supports two types of image decoding for use in various bar code reading and imaging applications: ALD (Advanced Linear Decoding) for fast reading of linear 1D and 2D bar codes, and full area imaging for omni-directional reading of linear and non-linear 1D and 2D bar codes, OCR, signature capture, and picture taking.

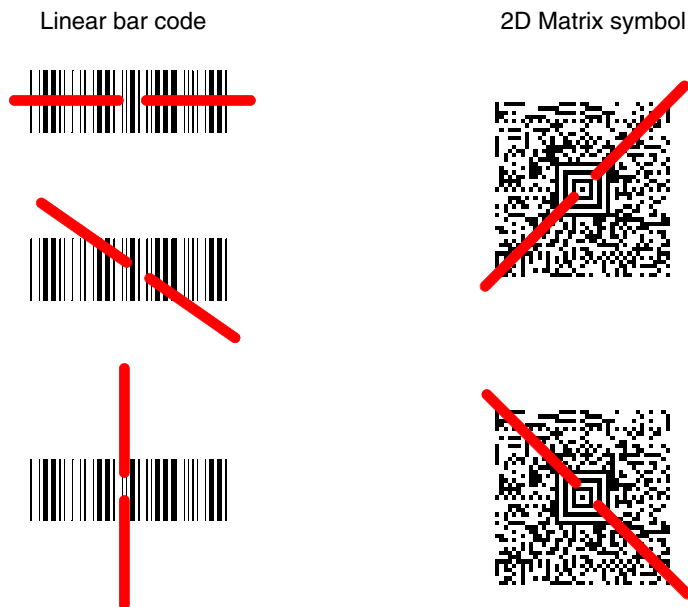
The decoding method used in a particular scanning or image capture application is determined by the application developer and cannot be changed by the end user. The imaging capabilities of both decode methods help simplify terminal operation and enhance data capture productivity.

When reading linear 1D and PDF417 bar codes using ALD, the imager's aiming beam should be centered horizontally across the bar code to achieve a positive read.

When reading all bar code types using full area imaging, the aiming beam should be centered horizontally across the bar code to achieve the best read, though a positive read can be obtained from most any position.

Decoding A Bar code

1. Press the **SCAN** button on the Dolphin 9500/9550 to project the imager's green aiming beam. The aiming beam should be oriented in line with the bar code to achieve the quickest read. A range of 4-10 inches (10-25 cm) is recommended.
2. Center the aiming beam over the bar code. The red SCAN LED illuminates when the user presses the SCAN key, and the green DECODE LED illuminates when a bar code is successfully decoded and the terminal beeps.



The aiming beam is smaller when the terminal is held closer to the code and larger when it is farther from the code. Symbologies with smaller bars or elements (mil size) should be read closer to the unit. Symbologies with larger bars or elements (mil size) should be read farther from the unit.

Capturing Images

The image-capture process is an intuitive, split-second operation for experienced users. By following the basic guidelines, new users can easily develop their own technique and, with practice, quickly learn to adapt it to different circumstances. Basic steps for acquiring images using the Dolphin 9500/9550 terminal include:

1. To aim, point the display end of the Dolphin 9500/9550 horizontally at a 45° angle approximately 2 to 9 inches (5 to 20 cm) away from the target.
2. Press the **SCAN** button to take an image. Use the live video image on the terminal screen as a guide for positioning and aiming the terminal at the target. You may find it helpful to start by moving the terminal further away and then in closer to the target. The active screen image will have a slightly degraded appearance compared to the captured image. This is normal.
3. Release the **SCAN** button to capture the image when the desired image is displayed on the terminal screen. Hold the Dolphin terminal as still as possible when capturing the image.

Basic steps for acquiring images using the Dolphin 9500/9550 terminal are:

1. Point the display end of the 9550 directly at the target.
2. Pull the **Scan Trigger** to take the image. Use the live video image on the terminal screen as a guide for positioning and aiming the terminal at the target. You may find it helpful to start by moving the terminal further away and then in closer to the target. The active screen image will have a slightly degraded appearance compared to the captured image. This is normal.
3. Release the **Scan Trigger** to capture the image when the desired image is displayed on the terminal screen. Hold the Dolphin terminal as still as possible when capturing the image.

The image quality and related file size are determined by the data compression method used by your software application. For highest quality, take grayscale images. When saved, the image will be saved in JPEG file format. The size of the file depends on the information content of the image and will be approximately 4-8 K.

Communication

Communication Media

Via the Industrial Connector

The industrial connector supports USB and serial communications. It supplies 5 volts of power and allows the user to connect external devices such as scanners and printers, to the Dolphin 9500/9550 terminal.

Via the IrDA Port

The IrDA port allows the Dolphin 9500/9550 to send data via pulses of light to and from other IrDA-compliant devices, such as printers and PCs or to other Dolphin 9500/9550 terminals.

Via the 802.11b Radio

The Dolphin 9500/9550 may be equipped with a WiFi®-compliant, interoperable 2.4 GHz 802.11b direct sequence spread spectrum wireless local area network (WLAN) radio.

Via Bluetooth Radio

The Dolphin 9500/9550 may be equipped with a Bluetooth personal area network (PAN) radio.

Software Communication Programs

Microsoft® ActiveSync®

In the Dolphin 9500/9550 Microsoft® development environment, ActiveSync® is a tool for developers. It allows Pocket PC devices like the Dolphin 9500/9550 to connect to and exchange data with a desktop computer.

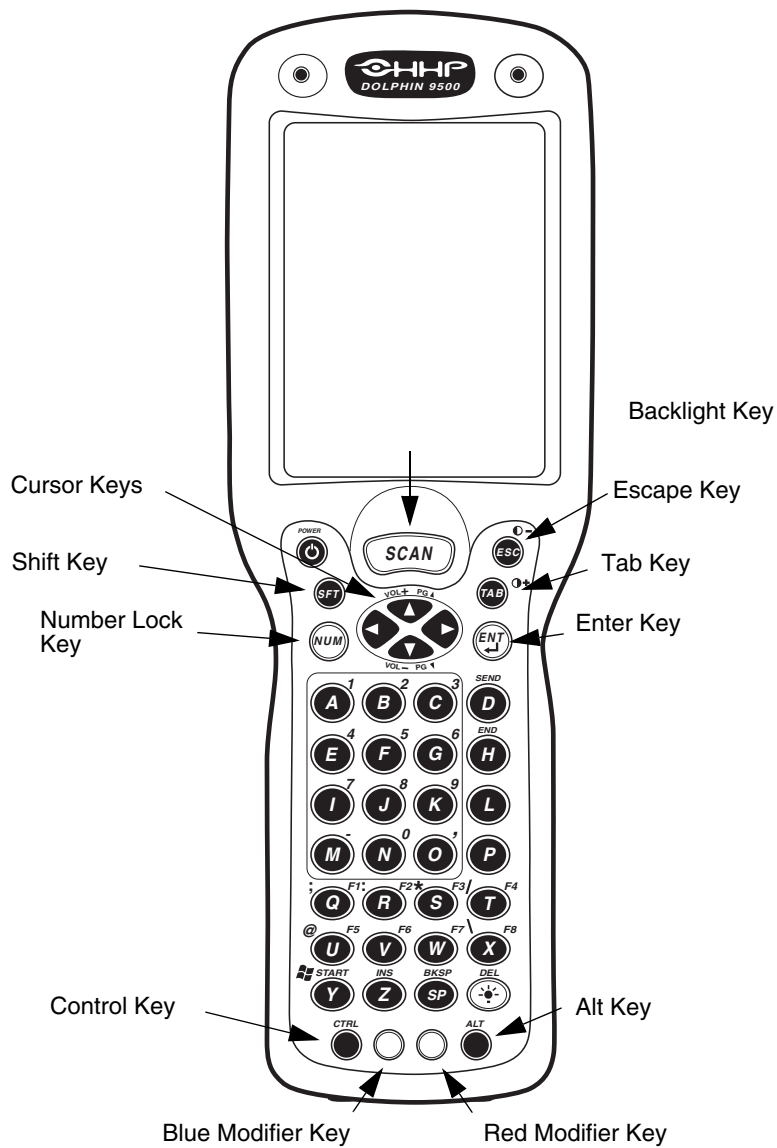
RAS

Short for *Remote Access Services*, a feature built into Windows NT® that enables users to log into an NT-based LAN using a modem, X.25 connection or WAN link. RAS is fully supported and allows the use of PPP or SLIP connections for network connectivity.

Using the Keyboard

Using the Special Keys





The Dolphin 9500/9550 keyboard has special keys and key combinations that you use to type characters or perform functions. Refer to the chart in [Appendix A](#) for key combinations for keyboard functions and special characters that use these keys.



Dolphin 9500/9550 43-Key Front View

Using the Cursor Keys

Use the cursor keys to navigate around on an application screen. The use of these keys can vary depending on the application.

To Use This Cursor Key	Press	Description
Arrow up		Moves cursor up one row or line.
Arrow down		Moves cursor down one row or line.
Arrow right		Moves cursor one character to the right.
Arrow left		Moves cursor one character to the left.

Using the Modifier Keys

All three versions of the Dolphin 9500/9550 keyboard feature the standard PC keyboard modifier keys, **Alt**, **Ctl** and **Shift**. For single-handed operation, the **Shift** key only modifies the next key pressed; it must be pressed and released before each key you wish to modify. Functions of the Alt and Ctl keys are dependent on the software application in use.

There are two additional modifier keys located on the bottom row of the keyboard. Use these keys in combination with other keys to type the corresponding color-coded characters and functions. The Red and Blue keys only modify the next key pressed; these keys must be pressed and released before each key you wish to modify to the Blue or Red case. See the chart in [Appendix A](#) for key combinations for keyboard functions and special characters that use these keys.

Other Special Keys

SCAN Key

The SCAN key “wakes” the terminal from sleep mode. Its position also allows convenient one-handed image-taking and/or bar code scanning. On the 9550 terminal, the SCAN key operates as an On or system wakeup control -- scanning is activated with the handle trigger.

Power Key

The Power key puts the terminal into Suspend Mode and also wakes terminal from suspend mode.

Shift (SFT)

The Shift key toggles the keyboard from upper case alphabet mode to lower case alphabet mode and back. Caps Lock may also be toggled by pressing the red modifier key followed by the Shift key or by double-tapping the Shift key. When Caps Lock is toggled on, the Shift key makes characters lower case; when it is toggled off, the Shift key makes keys upper case.

Enter (ENT)

The Enter key confirms data entry.

Escape (ESC)

The Escape key performs a cancel action.

Tab

The Tab key moves the cursor to the next tab stop or the next control on a form.

Backlight

The Backlight key toggles the LCD and keyboard backlights on and off.

Number Lock (NUM)

This key is included only on the 43-key keyboard option which defaults to alphabetic mode. The Number Lock key toggles between the alphabetic and numeric modes.

Alpha Lock (ALPHA)

This key is included only on the 35-key keyboard option which defaults to numeric mode. The Alpha key toggles between the numeric and alphabetic modes.

Backspace (BKSP)

This key appears on both the 35 and 56-keyboard options. The Backspace key moves the cursor back one space for each time the key is pressed. Backspace is a shifted function on the 43-key keyboard version. To delete a single character, press Red key + SP. To delete multiple characters, press Red key + SP and hold down the SP key.

Delete (DEL)

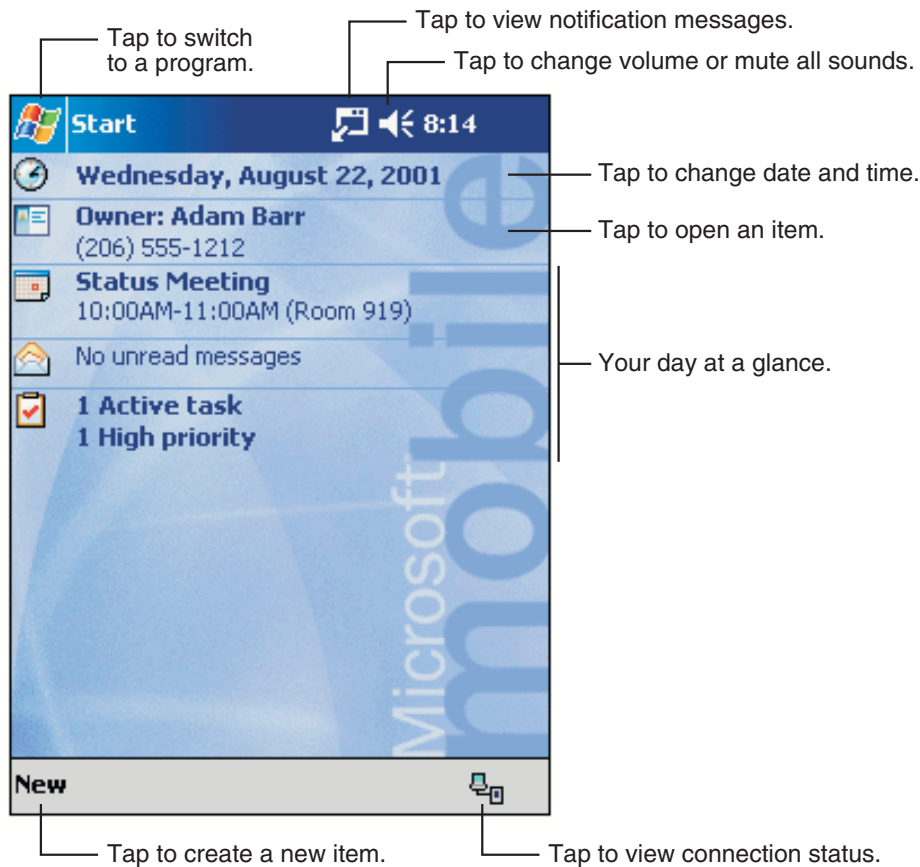
This key appears on both the 35 and 56-keyboard options. The Delete key deletes one character for each time the key is pressed. Delete is a shifted function on the 43-key keyboard version.

Key Combinations

There are some keyboard functions and special characters not defined on the Dolphin 9500/9550 keyboards or overlays. Refer to the charts in [Appendix A](#) for the key combinations used to access these functions and special characters on your terminal.












Today Screen


When you turn on your device for the first time each day (or after 4 hours of inactivity), you'll see the Today screen. You can also display it by tapping **Start** and then **Today**. On the Today screen, you can see at a glance important information for the day.



Today Screen

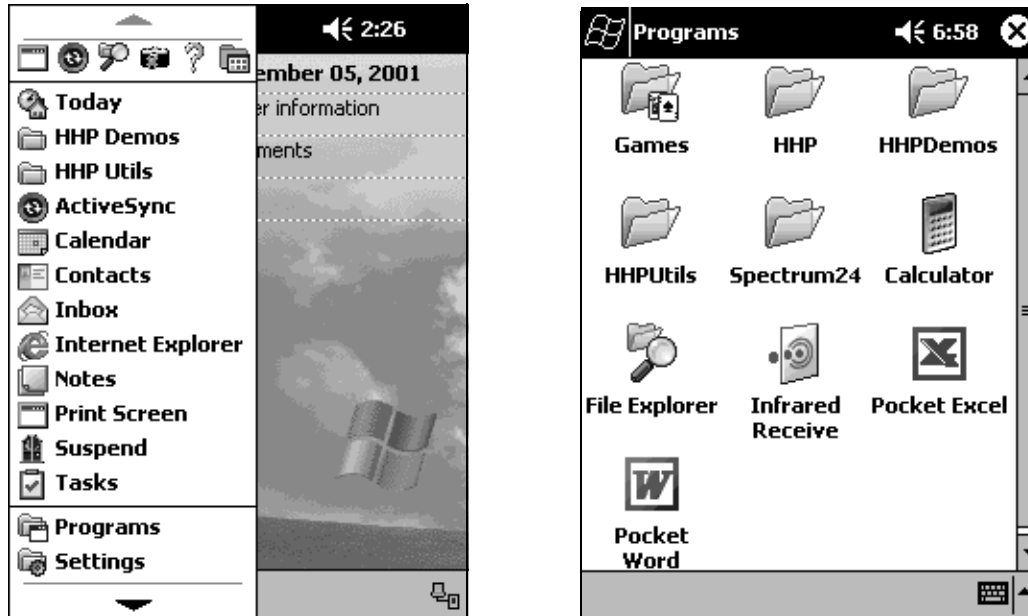
Following are some of the status icons you may see.

Status Icon	Meaning
	Turns all sounds on and off
	Backup battery is low
	Main batteries are charging
	Main batteries are low
	Main batteries are very low
	Main batteries are full
	Connection is active
	Synchronization is beginning or ending
	Synchronization is occurring
	Notification that one or more instant messages were received
	Notification that one or more e-mail messages were received

Note: If more notification icons need to be displayed than there is room to display them, the Notification icon, , will display. Tap the icon to view all notification icons.

Selecting Programs

To select a program, tap **Start>Programs**, then the program name. (You can customize which programs you see on this menu. For information, refer to [Adjusting Settings](#) on page 6-1.



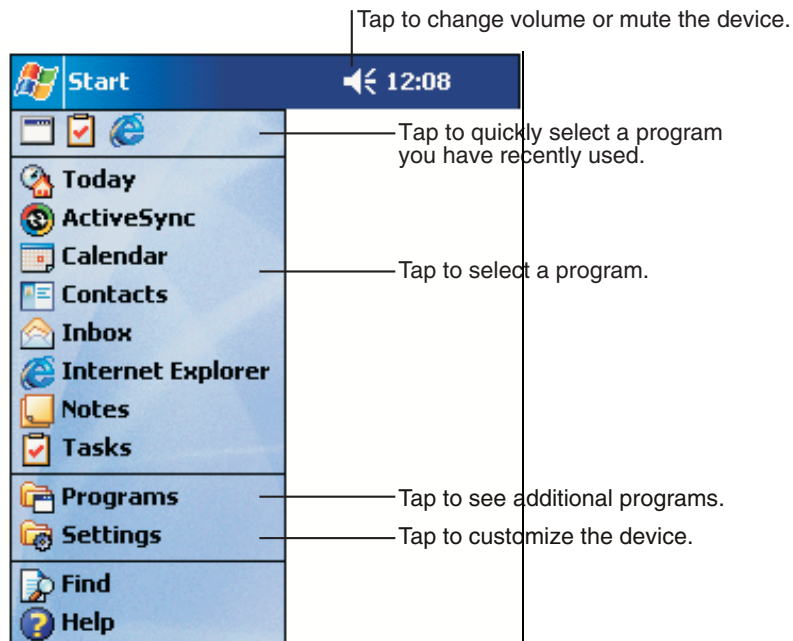
Start Menu

Note: Some programs have abbreviated labels for check boxes and drop-down menus. To see the full spelling of an abbreviated label, tap and hold the stylus on the label. Drag the stylus off the label so that the command is not carried out.

Navigation Bar and Command Bar

The navigation bar is located at the top of the screen. It displays the active program and current time, and allows you to switch to programs and close screens.

Use the command bar at the bottom of the screen to perform tasks in programs. The command bar includes menu names, buttons, and the Input Panel button. To create a new item in the current program, tap **New**. To see the name of a button, tap and hold the stylus on the button. Drag the stylus off the button so that the command is not carried out.



Screen Navigation

Pop-up Menus

With pop-up menus, you can quickly choose an action for an item. For example, you can use the pop-up menu in the contact list to quickly delete a contact, make a copy of a contact, or send an e-mail message to a contact. The actions in the pop-up menu vary from program to program. To access a pop-up menu, tap and hold the stylus on the item name that you want to perform the action on. When the menu appears, lift the stylus, and tap the action you want to perform. Or tap anywhere outside the menu to close the menu without performing an action.

Notifications

Your device reminds you in a variety of ways when you have something to do. For example, if you've set up an appointment in Calendar, a task with a due date in Tasks, or an alarm in Clock, you'll be notified in any of the following ways:

- A message box appears on the screen.
- A sound, which you can specify, is played.
- A light flashes on your device.

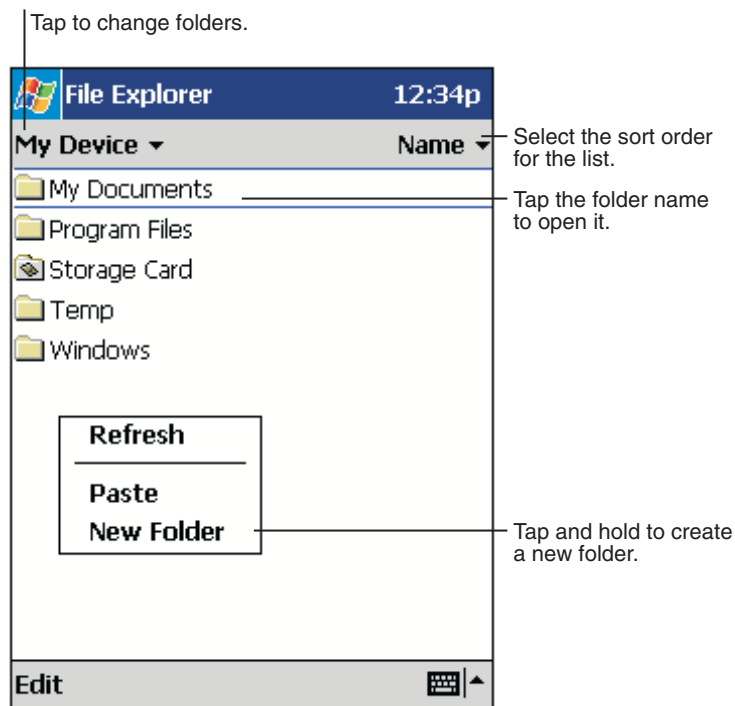
To choose reminder types and sounds for your device, tap **Start>Settings>Personal tab>Sounds & Notifications**. The options you choose here apply throughout the device.

Finding and Organizing Information

The Find feature on your Dolphin mobile computer helps you quickly locate information. On the **Start** menu, tap **Find**. Enter the text you want to find, select a data type, and then tap **Go** to start the search.

To quickly find information that is taking up storage space on your device, select **Larger than 64 KB** in **Type**.

You can also use the File Explorer to find files on your device and to organize these files into folders. On the **Start** menu, tap **Programs**, and then **File Explorer**.



File Explorer

You can move files in File Explorer by tapping and holding the item you want to move, and then tapping **Cut** or **Copy** and **Paste** on the pop-up menu.

Wireless Communications with Dolphin 9500/

9550

Wireless communications with the Dolphin 9500/9550 mobile computer is versatile with co-existing WiFi™ -compliant 802.11b WLAN and Bluetooth™ WPAN radios integrated into the terminal. That, in addition to the open software architecture, make the Dolphin 9500/9550 a complete solution for a variety of wireless mobile data collection applications.

Wireless Local Area Network (WLAN) Communications

Dolphin 9500/9550 terminals have an on-board 2.4 GHz 802.11b DSSS WLAN radio. The radio uses direct sequence spread spectrum (DSSS) technology, which spreads its signal continuously over a wide frequency band, and provides an Ethernet-like data rate of up to 11 megabits per second.

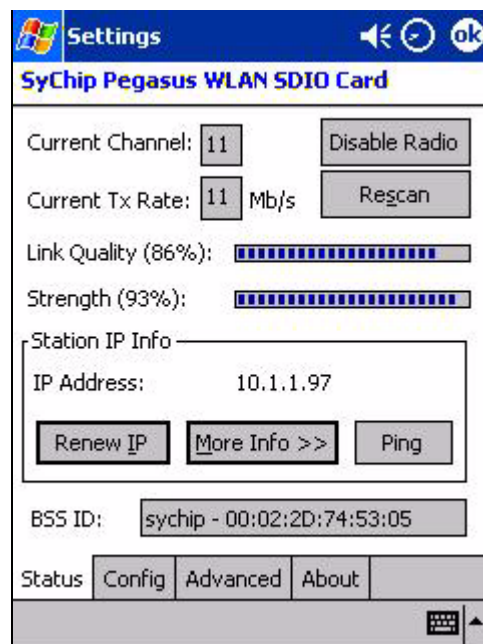
Dolphin 9500/9550 is interoperable with other 802.11b WiFi®-compliant products including access points, printers, PCs via PC-card adapters and other wireless portable terminals.

Configuring WLAN Communications

Status Tab

The **Status** screen shows important parameters about the 802.11b radio.

Go to **Start>Settings>Pegasus** or click on the status icon  to open the configuration utility for the 802.11b radio and the screen shown below displays:



Status Window

Note: "Click" in this document actually means "tap" with a stylus on the screen of the Dolphin 9500/9550. However, we will keep the conventional usage of Click instead of Tap.

Information Fields

Current Channel

Shows the RF channel currently used by the card.

Current TX Rate

Shows the current transmit rate. This can be 1Mb/s, 2Mb/s, 5.5Mb/s, or 11 Mb/s.

Link Quality

Gives signal to noise ratio in both percentage and graphical display.

Strength

Gives signal strength of the receiver in both percentage and graphical display.

Station IP Info

IP Address - IP address of the radio

Note: Check with your network administrator for IP configuration information.

BSS ID/IBSS ID

Shows the Network Name and the MAC address of the access point the card is associated with in the AP mode. Or it shows the Network Name and the MAC address of the creator of IBSS which the card is joined into in the Peer-to-Peer (Ad-Hoc) mode.

Operation Buttons

Disable/Enable Radio

Click this button in toggle to disable/enable the radio link from the card.

Rescan

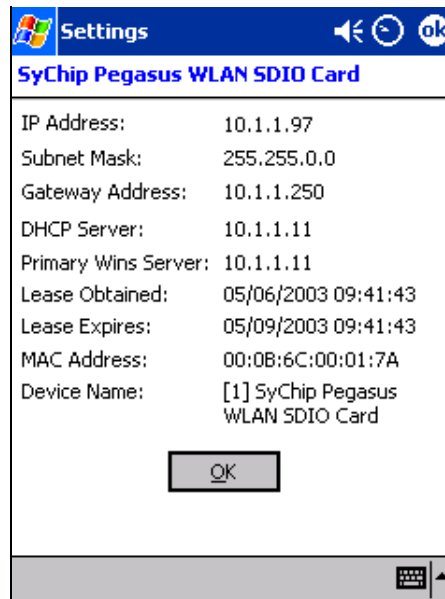
Click on this button to start a rescan process to search for an AP with stronger signal in the network.

Renew IP

Click this button to reapply IP address from DHCP server when automatic DHCP is enabled.

More Info

Click this button to show detailed TCP/IP info as shown in the screen below:

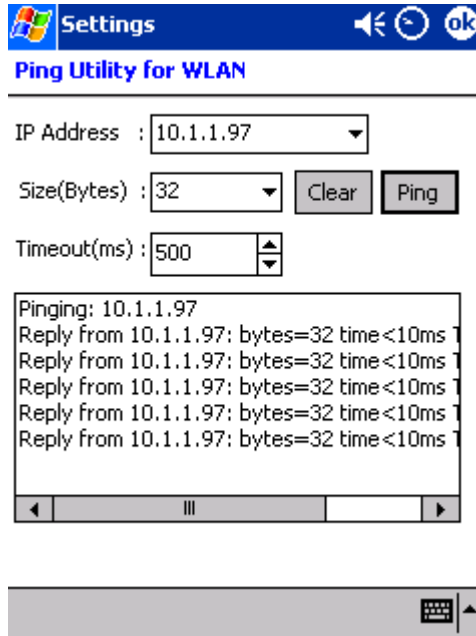


More Info Window

Click OK to close this window.

Ping

Click this button to open the window below:



Ping Window

IP Address: Enter an IP address to ping.

Size (Bytes): Choose from pull down menu from 32 to 8192 with 32 as the default.

Timeout (ms): Defaulted to 500, can be increased or decreased from the spin button.

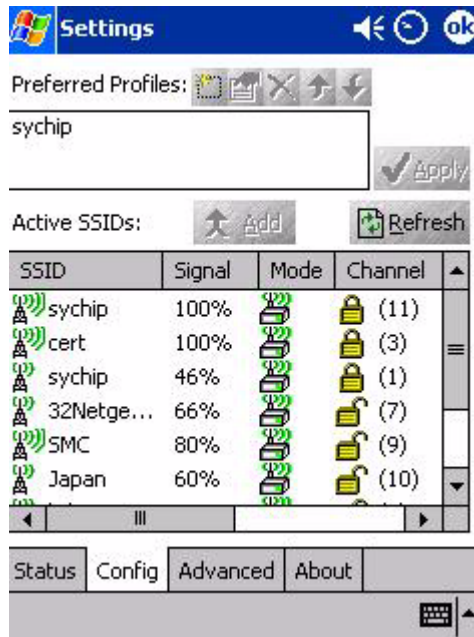
Clear: Click this button to clear IP Address input and the ping statistics field.

Ping: Click on this button to ping the IP address entered in the input field.

Ping Statistics Field: Shows the pinging IP address and the pinging results.

Config Tab

The **Config** tab provides a list of all access points and peer stations associated with the host and a configuration tool that enables you to create and edit SSID profiles for access points that you want your station to associate with.



Config Window

Information Fields

Preferred Profiles

A list of preferred profiles for access points (AP) in the network created by the user, or added from the Active SSIDs table is located at the top of the Config window. When the radio is turned on, it searches for the APs with which to associate in the order of the listed profiles. For each profile in the table, one can make changes by using the icon tools at top of the table: **New**, **Edit**, **Delete**, **Up**, and **Down** ([Operation Buttons](#) on page 5-2). This table is blank after the initial Pegasus software installation. It can be kept blank with no automatic association preference.

Active SSIDs

The Active SSIDs table lists all access points or peer stations (creator of IBSS) in the vicinity of the host. Each record displays information for the following six fields (The table may not display all the fields on the screen. Use horizontal scroll bar to check all):

SSID - Network Name of the access point or peer station. A link icon with signal strength is also shown.

Signal - Signal Strength in percentage for that SSID.

Mode - An icon shows whether it is an access point , or a peer station .

Channel - The channel it uses and the WEP method it applies if any. The icon stands for WEP Key-On, and for WEP Key-Off.

SupRate - Supported data rate of the access point or the peer station.

BSSID (MAC Addr) - BSSID or MAC Address of the access point or the peer station.

Operation Buttons

Add

1. To add an Active SSID profile to the Preferred Profile table:
2. Select and highlight an SSID from the Active SSID list.
3. Click on the **Add** button. If the SSID has WEP Key-On, the **Settings** window displays and prompts you to enter the **WEP Method**, **Encryption Key**, and **Key ID**. Click **OK** in the Settings window after finishing the configuration, and the SSID and its profile will be added into the Preferred Profiles window.

If adding an SSID with WEP Key Off, the Settings window does not display and the SSID will be added directly to the Preferred Profile table when you click the **Add** button.

Apply

Click the **Apply** button to associate your station with the SSID you selected. This SSID can be either from the Preferred Profile table or from the Active SSIDs list. When applied, the Status tab window displays the status of the wireless connection. If the association failed, a search for another AP in the Preferred Profile list automatically takes place and the radio attempts to associate with the station, in order of preference.

Refresh

Click the **Refresh** button to start a new search for all available access points or peer stations in the vicinity.

Creating and Modifying Profiles

Five icon buttons at the top of the screen can be used to create or modify Preferred Profiles:



New: create a profile.



Edit: modify a profile.



Delete: delete a selected profile.



Up: move the highlighted profile up to increase the automatic association priority.



Down: move the highlighted profile down to decrease the automatic association priority.

To create and add a new profile to the Preferred Profiles list, click the **New** button and the screen shown below displays:

The screenshot shows a Windows-style dialog box titled "Settings". It has a blue title bar with a Windows logo, a back arrow, a refresh arrow, and an "ok" button. The dialog is divided into two sections: "Network Name & Type" and "WEP".

Network Name & Type

- SSID: [Empty text box]
- TX Rate: Fully Auto (dropdown menu)
- Type: Access Point (dropdown menu)
- Chan: 11 (spinners)

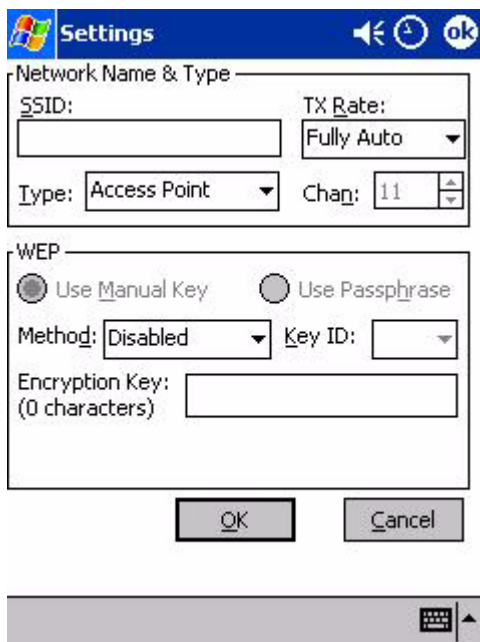
WEP

- Use Manual Key (selected radio button)
- Use Passphrase (radio button)
- Method: Disabled (dropdown menu)
- Key ID: [Empty dropdown menu]
- Encryption Key: (0 characters) [Empty text box]

At the bottom of the dialog are "OK" and "Cancel" buttons. Below the dialog is a grey bar with a keyboard icon and an up arrow.

Enter the values for the new profile in the information fields and click **OK**.

To modify a profile, select (highlight) a profile and click the **Edit** button and the following screen displays:



The SSID, Type, TX Rate, and Channel fields are unchangeable in AP mode, whereas TX Rate and Channel fields can be changed in Peer-to-Peer mode.

The information fields and operation buttons are listed as follows:

SSID: to enter an SSID, which is the Network Name.

Check with your network administrator for Network Name (SSID).

Type: Choose from Peer-to-Peer or Access Point in the pull down menu. Access Point mode is also called "Infrastructure" mode. Peer-to-Peer mode is used for communication between two (or more) radio stations (cards) without an access point.

TX Rate: Choose 1Mb, 2 Mb, Auto 1/2 Mb, 5.5 Mb, 11 Mb, or Fully Auto from the menu. The transmit rate is Fully Automatic by default.

Chan: Channel. Scroll to select a channel for communication.

WEP block: Used to configure the WEP Key for secure wireless communication. Within the WEP block, WEP Method, Encryption Key, and Key ID can be configured.

Use Manual Key: Manually input the encryption code for the WEP Key. This is the default setting.

Use Passphrase: Generates an encryption code based on the phrase entered in the window. Not available in this release.

Method: Five options to choose from:

- Disabled WEP Key Off
- 64 bit (HEX) up to 10 characters configurable in Hexadecimal for Encryption Key
- 64 bit (ASCII) up to 5 characters configurable in ASCII for Encryption Key
- 128 bit (HEX) up to 26 characters configurable in Hexadecimal for Encryption Key
- 128 bit (ASCII) up to 13 characters configurable in ASCII for Encryption Key

Note: HEX, Hexadecimal number set of 16 digits from 0-9 and from A(a)-F(f). ASCII: Any printable ASCII characters.

Encryption Key: Different character set depending on different WEP method and key format.

Key ID: Four options to choose from:

- Key 1 (Default)
- Key 2
- Key 3
- Key 4

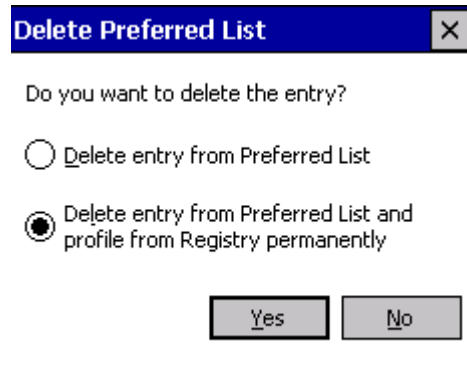
Check with your network administrator for security WEP Key and Key ID you need to use.

Cancel: Click this button to close the window without saving or modifying the profile.

OK: Click this button to make the change.

Deleting a Profile

Profiles may be deleted either from the Preferred List or from the Preferred List and Registry. To delete a profile, select (highlight) a profile and click the **Delete** button and the following screen displays:



From the pop-up window select the option of your choice and click **Yes** to confirm, or **No** to cancel.

Advanced Settings Tab



Information Fields

Power Save Mode

- vDisable - Choosing this option will disable the power save mode.
- vAlways Enable - Choosing this option will have the power save mode always enabled. This is the default setting.
- vAuto Enable - When internal battery is being used it will be in Power Save mode; when external power supply is being used the Power Save mode will be disabled automatically.

Authentication Algorithm

Note: Only configurable when the WEP Key is enabled for the SSID profile.

- WECA Compliant (always use Open) - Not available in this release.
- Must use Shared with WEP - AP must use WEP method.
- Automatic based on WEP setting - Default setting.
- Preamble Mode
 - Long TX Preamble - Where Sync field consists of 128 bits.
 - Short TX Preamble - Where Sync field consists of 56 bits.
 - Auto TX Preamble - Automatically change between long and short preamble mode transmission based on the AP configurations. This is the default Preamble Mode.

Note: A Preamble consists of a Synchronization (Sync) field and a 16-bit Start Frame Delimiter (SFD) field.

Operation Buttons

Defaults:

Resets all the settings to default values (Always Enable for Power Save Mode, Automatic based on WEP setting for Authentication Algorithm, and Auto TX Preamble for Preamble Mode).

Undo:

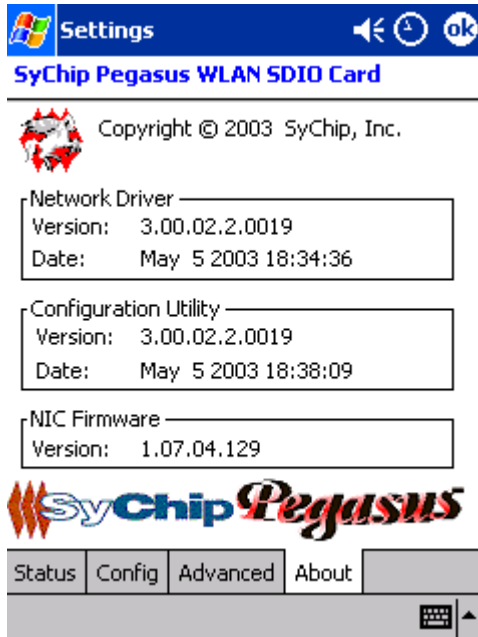
Cancels the change for setting.

Apply:

Applies the change to new card setting.


About Tab

This window provides Version Number and time of build for Network Driver, Configuration Utility, and NIC Firmware. Check the SyChip website for the latest version.



Status (Link) Icon

The user may access the configuration utility via the Pegasus WLAN Configuration Icon from Windows Programs, or clicking on

the Status Icon  located in the status tray in the lower right corner of the screen. The Status Icon also has additional functionality. When you right click on the icon, the menu shown below displays:




From this window you can do the same thing as you can from the Pegasus WLAN Configuration Icon. On the lower part of the window are the four menu entries corresponding to the four configuration settings tabs, the Status Tab, Config Tab, Advanced Tab, and About Tab, respectively.

Wireless Radio On - Turns on the radio. LED is on and the Link Icon displays with signal strength.

Wireless Radio Off - Turns off the radio. A pop-up window will ask for your confirmation. If confirmed, the LED will be off and the Link Icon will change color from green to red on the top without signal strength displayed. The WLAN card/module will stop functioning.

Remove Status Icon - Removes the Status Icon from the Windows Status Tray. A pop-up window will ask for your confirmation. If confirmed, the Status (Link) Icon will be removed from the Windows Status Tray.

Wireless Network Status - Goes to Status Tab of configuration utility

Note: If the Status Icon changes to a crossed lock  , it warns you that you may have entered a wrong key (WEP Key mismatch) for the WEP-On AP or a station.

Remove Wireless Status Icon Window

If you choose to remove the Remove Status Icon, the screen shown below displays:



Press **Yes** to confirm, or **No** to cancel.

If confirmed, the Status Icon will not display in the Windows Status Tray. By checking "Remove Status Icon Permanently" at the bottom of the window you will not see the Status Icon even after your system has been restarted. Otherwise it will re-appear next time you turn on the system.

Double clicking on the Pegasus Configuration Icon from the Control Panel will always bring the Status (Link) Icon back to the Windows Status Tray for either temporary removal or permanent removal of the icon.

Wireless Personal Area Network Communications with Bluetooth

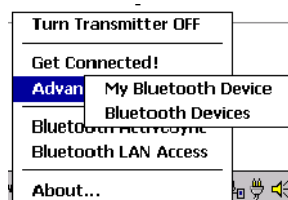
Setting up Your Bluetooth Card

Note: Note: If you use the Get Connected! Wizard, which is recommended for normal usage, then this step is not necessary. This step would be used to change the friendly name of your mobile computer.

1. After you insert the Bluetooth Card, the Bluetooth icon  should appear in the task tray (visible from the Today screen for Pocket PCs). Tap on the icon.

Note: If you installed OBEX, the menu will also list Transfer via Bluetooth.

2. In the pop-up menu, select **Advanced Features**, then **My Bluetooth Device**.



3. In the **My Bluetooth Device** screen, you can modify the **Friendly Name** and make any desired configuration changes. When done, tap **OK**.



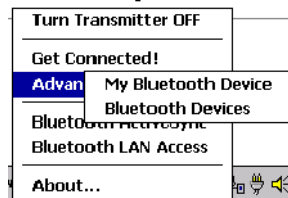
Note:

- In normal phone connect operation, **Discoverable** mode is not needed and should be disabled.
- If you do enable **Discoverable** mode (e.g., for ActiveSync), note that it does not shut off by itself. To save power, remember to disable it when not needed.
- **Connectable**, **Use Authentication**, and **Use Encryption** are also not required for printing or dial-up networking applications.
- Check Use **Authentication** to enable the **Use Encryption** option.

Assign COM Ports

Follow these steps to view and/or modify the Bluetooth COM ports.

1. Tap on the Bluetooth icon on the Today screen. Select **Advanced Features** then **My Bluetooth Device**.

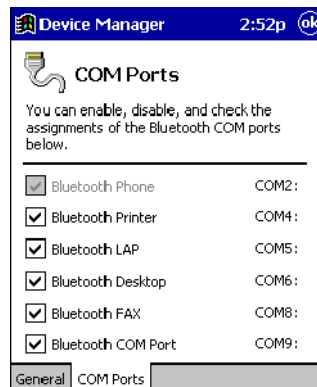


Note: If you installed OBEX, the menu will also list Transfer via Bluetooth.

2. The **My Bluetooth Device** screen will appear. Tap on the **COM Ports** tab.



3. As needed, view and/or enable/disable the Bluetooth COM port assignments. Tap OK.

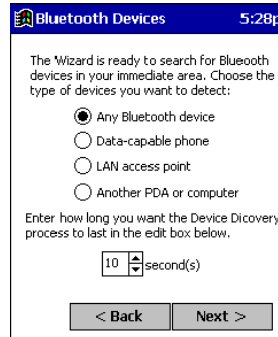


Note: The Bluetooth Phone port cannot be disabled.

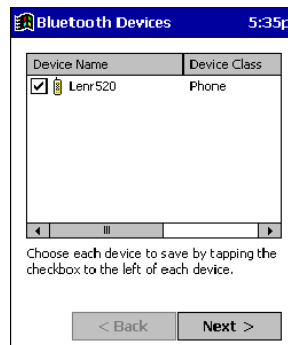
Discover Bluetooth Device(s)

Follow these steps to discover other Bluetooth devices nearby, including non-phone devices. The Device Discovery Wizard is a more detailed alternative to using the Bluetooth "Get Connected!" Wizard or Bluetooth ActiveSync or Bluetooth LAN Access options. The Device Discovery Wizard allows you to discover any type of Bluetooth device.

1. If not open, launch the **Bluetooth Devices** folder. Tap on the Bluetooth icon on the **Today** screen. Select **Advanced Features** then **Bluetooth Devices**.
2. In the **Bluetooth Devices Folder**, tap on the **Device Discovery** icon. Or you can tap on **Tools**. In the pop-up menu, select Device Discovery.
3. Follow the Bluetooth Device Discovery Wizard to search for Bluetooth devices nearby. When prompted, select the device type you seek.



4. When the search is complete, a screen will report the discovered Bluetooth devices. Check the box next to any device you wish to save information about, (i.e., any devices you wish to connect to). Tap **Next>**.



5. A service discovery phase will begin, 5-10 seconds per chosen device.
6. In the next screen, tap Finish.

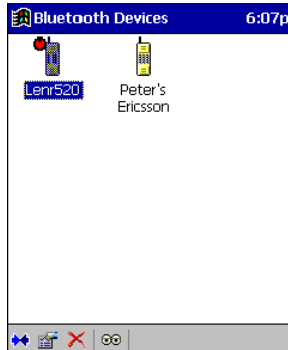
Bond with Discovered Device(s)

Follow these steps to bond with an already discovered Bluetooth device. In most cases, bonding is for establishing secure communications with a Bluetooth-enabled phone. This is a more detailed alternative to using the Bluetooth "Get Connected! Wizard."

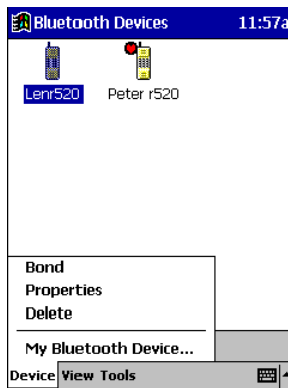
Important!

- *Do not try to bond with a Motorola Timeport 270C or Nokia 6310!*
- *Do not use this method to bond with a printer! The third-party printing software included on the installation CD also handles bonding.*

1. If not open, launch the **Bluetooth Devices** folder. Tap on the Bluetooth icon in the Today screen. Select **Advanced Features**, then **Bluetooth Devices**.
2. Tap and hold your stylus on the Bluetooth device you want to bond with. In the pop-up menu, select **Bond**.



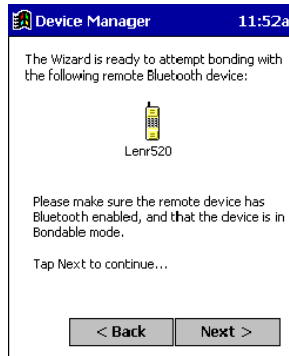
3. Alternatively, after selecting a device, tap on the **Bond** icon. Or tap on **Device**, then select **Bond**.



4. The **Bluetooth Device Bonding Wizard** will launch. Follow the wizard to bond with your selected device.



5. As prompted, make sure the Bluetooth device that you want to bond with is in *Bondable* mode.



6. If the remote device is set up to accept bonding, a **Bluetooth Passkey** screen will appear. To continue bonding, enter the correct passkey and tap **Reply**.



7. When you have successfully bonded with the other device, tap **Finish**.

View Device Properties

Follow these steps to view the properties of an already discovered device.

1. If not open, launch the **Bluetooth Devices** folder. Tap on the Bluetooth icon on the Today screen. Select **Advanced Features** then **Bluetooth Devices**.
2. Select a device. Tap on the **Properties** icon, or tap on **Device** then select **Properties**. Alternatively, you can tap and hold your stylus on the Bluetooth device you want to view information about. In the pop-up menu, select **Properties**.



- Use the **General** and **Services** screens to research device properties. If needed, assign a new device type icon by tapping on the arrow buttons in the **General** screen. You can also use the **Device name** field to rename the device. When done, tap ok for the setting to take effect.

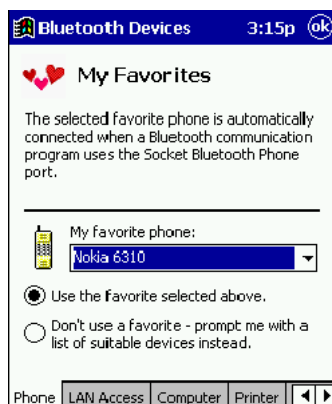


Set up Your Favorite Device

Follow these steps to set up default devices in the **Bluetooth Devices** folder.

Note: The Get Connected! Wizard automatically assigns the favorite phone.

- Tap on **Tools** and select **My Favorites**.
- Tap on the tab for the type of device you would like to set a favorite for. If needed, use the arrow buttons to scroll and find the tab you need.



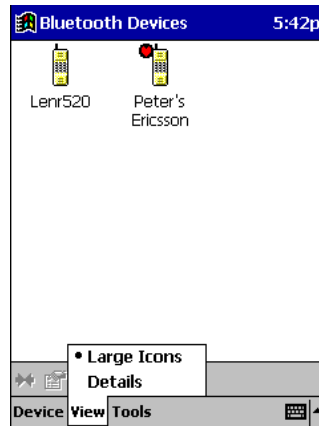
Note: Tabs will appear only for COM ports you have enabled. To enable a port, refer to the "Assign COM Ports" section earlier in this chapter.

- To select a favorite device, select **Use the favorite selected above**. In the drop-down menu, select your device. Tap **OK**.
- After setting a device as your favorite, its icon will appear in the Bluetooth Devices folder with a heart next to it.

Change Views

You can switch between the **Large Icons** or **Details** views for the **Bluetooth Devices** folder.

1. In Bluetooth Devices, tap on View.
2. In the pop-up menu, choose between **Large Icons** or **Details**.



Large Icons view



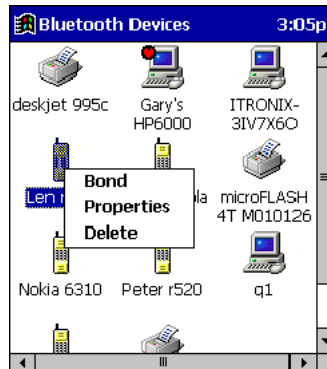
Details view

*Note:*In Details view, scroll right to see the current Bonded status.

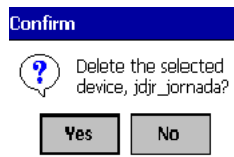
Delete a Device from the Folder

If you no longer plan to connect with it, you can delete a device from the **Bluetooth Devices** folder.

1. If not open, launch the **Bluetooth Devices** folder.
2. Tap and hold your stylus on the device you wish to delete. In the pop-up menu, select **Delete**.




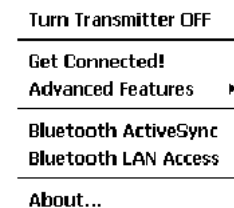
3. Alternatively, after selecting a device, tap on the **Delete** icon. Or tap on **Device** then select **Delete**.
4. A **Confirm** screen will appear. Tap **Yes**.



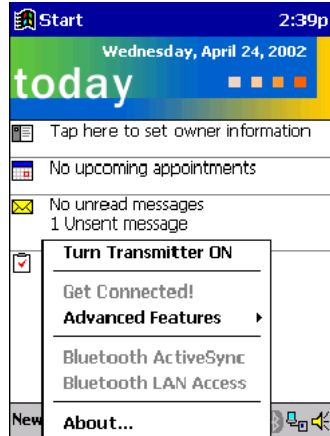
Turn Radio Transmitter ON/OFF

You may want to turn off the radio transmitter to save power or if you are entering an area with radio restrictions (e.g., an airplane).

1. The Bluetooth icon  should appear in the task tray on the **Today** screen. Tap on the icon.
2. In the pop-up menu, select **Turn Transmitter OFF**.




3. The Bluetooth Card radio transmitter will shut off. The Bluetooth icon in the task tray will become gray, as will relevant menu options (e.g., Get Connected!).



4. To turn the radio transmitter back on, tap on the gray Bluetooth icon. In the pop-up-menu, select Turn Transmitter ON.

Bluetooth ActiveSync

This section explains how to use the Bluetooth ActiveSync feature. It helps you quickly and easily ActiveSync to a notebook or desktop computer with ActiveSync v3.x installed.

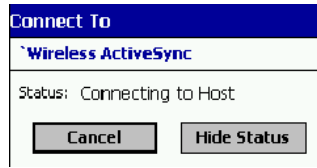
1. Tap on the Bluetooth icon  . In the pop-up menu, select Bluetooth ActiveSync.



2. The next screens will vary depending on if your Bluetooth Devices folder contains any computers, and if one is chosen as your favorite. Please refer to the appropriate scenario:

SCENARIO #1: Your Bluetooth Devices folder contains a favorite desktop computer.

- (a) When you tap Bluetooth ActiveSync, your mobile computer will automatically try to connect to your favorite computer.
- (b) The Connect To screen will appear, reporting that it is trying to connect to Wireless ActiveSync.



(c) After a successful connection is made, the status screen will report Connected. Now you are ready to synchronize files, if desired.

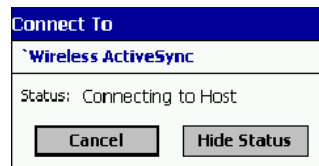
SCENARIO #2: Your Bluetooth Devices folder contains no favorite desktop computer.

(a) When you tap on Bluetooth ActiveSync, a screen will appear that allows you to choose which computer to connect to in your Bluetooth Devices folder. Choose a computer from the list and tap Select, or tap Find to search for another computer.



Note: If the computer you want to connect to is not listed, tap Find to begin a search. Proceed as described in Scenario #3 on the next page.

(b) Your mobile computer will attempt to connect to your selected computer.

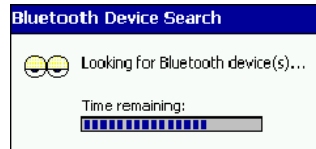


(c) After a successful connection is made, the status screen will report Connected. Now you are ready to synchronize files, if desired.



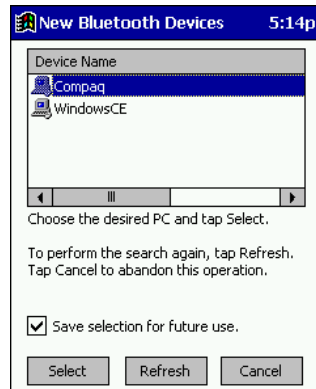
SCENARIO #3: Your Bluetooth Devices folder contains no computers.

(a) When you tap on Bluetooth ActiveSync, a Bluetooth Device Search will automatically begin.

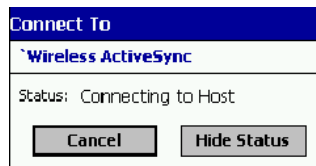


Note: You can also start the device search by tapping Find in the Bluetooth Devices screen. See Scenario #2 on page 5-21.

(b) After the search is complete, select the computer you wish to ActiveSync with and tap Select. If the computer is not listed, make sure the computer id discoverable and tap Refresh to search again.



(c) After you tap Select, a service discovery phase will begin.
(d) The Connect To screen will appear, reporting that it is trying to connect to Wireless ActiveSync.



(e) After a successful connection is made, the status screen will report Connected. Now you are ready to synchronize, if desired.

Bluetooth LAN Access

This section explains how to use the Bluetooth LAN Access feature to quickly and easily connect to a Bluetooth-enabled LAN access point.

1. Tap on the Bluetooth icon. In the pop-up menu, select Bluetooth LAN Access.



2. The next screens will vary depending on if your Bluetooth Devices folder contains any access points, and if one is chosen as your favorite. Please refer to the appropriate scenario:

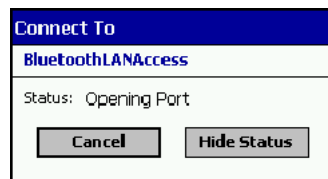
SCENARIO #1: Your Bluetooth Devices folder contains no favorite access point.

(a) When you tap Bluetooth LAN Access, a screen will appear that allows you to choose which access point to connect to in your Bluetooth Devices folder. Choose an access point from the list and tap Select.



Note: If your access point is not listed, tap Find and proceed as described in Scenario #3.

(b) Your mobile computer will try to connect to the selected access point.



(c) If your LAN requires a passkey, a screen will appear, asking for the passkey. Enter the passkey, then tap ok.

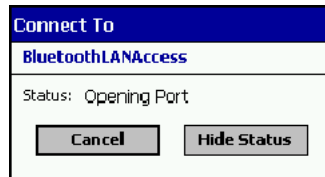
(d) After a successful connection is made, the status screen will report Connected.



(e) Now you are ready to access your LAN for Internet access, files, etc.

SCENARIO #2: Your Bluetooth Devices folder contains a favorite access point.

(a) When you tap Bluetooth LAN Access, your mobile computer will automatically try to connect with your favorite access point.



(b) If your LAN requires a passkey, a screen will appear, asking for the passkey. Enter the passkey, then tap ok.

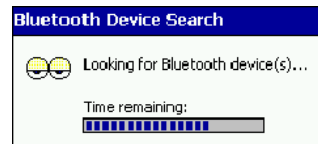
(c) After a successful connection is made, the status screen will report Connected.



(d) Now you are ready to access your LAN for Internet access, files, etc.

SCENARIO #3: Your Bluetooth Devices folder has no access points.

(a) When you tap Bluetooth LAN Access, the mobile computer will automatically begin to search for new Bluetooth devices.

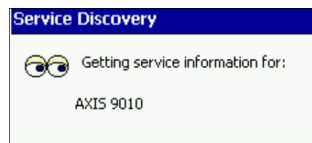


Note: You can also start the device search by tapping Find in the Bluetooth Devices screen. See Scenario #2 on page 5-21.

(b) After the search is complete, select the access point you wish to connect to. Tap Select. If the access point is not listed, tap Refresh to search again.

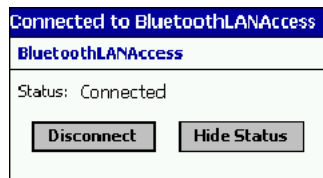


(c) After you tap Select, a service discovery phase will begin.



(d) If the LAN requires a Passkey, a screen will appear, asking for the Passkey. Enter the passkey, then tap ok.

(e) After a successful connection is made, the screen will report Connected.



(f) Now you are ready to access your LAN for Internet access, files, etc.

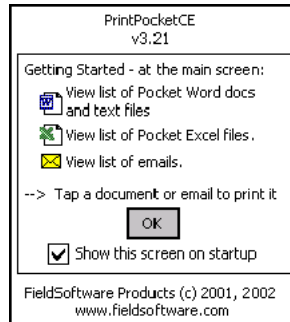
Bluetooth Printing

This chapter explains how to print from a Bluetooth-enabled printer using the PrintPocketCE software included on the installation CD to print from your device.

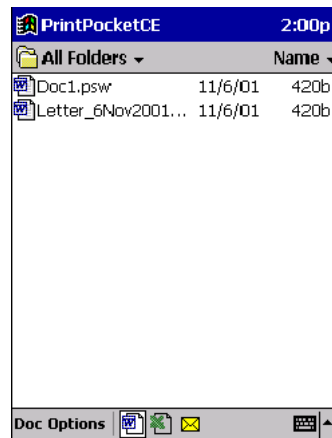
You can print using the PrintPocketCE program included on the Bluetooth Card Installation CD. The Bluetooth Connection Kit includes a 30-day trial version of PrintPocketCE. For a full version, please visit: www.fieldsoftware.com

If you have not done so already, be sure to install the PrintPocketCE program. To find the install for this program on the installation CD, go to the Third Party folder, then the Field Software folder.

1. Start the printing program. Go to Start>Programs>PrintPocketCE.
2. In the welcome screen, tap OK.



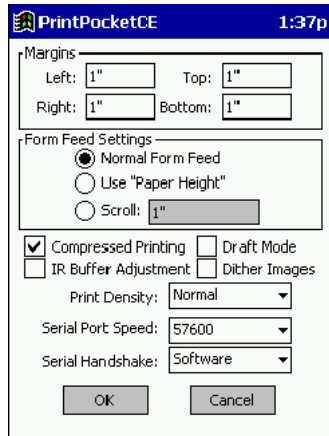
3. In the main screen, tap on the file you wish to print.



To locate your file:

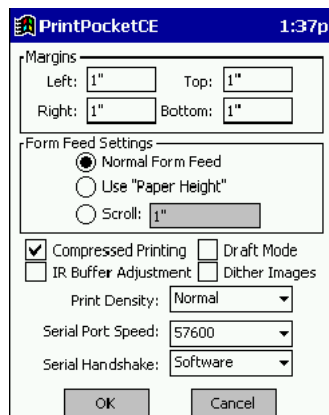
- Tap on the Word icon at the bottom of the screen to view a list of Pocket Word docs, TXT, or RTF files.
- Tap on the Excel icon to view a list of Pocket Excel files
- Tap on the yellow envelope icon to view e-mail messages.
- Tap on the Doc/Excel/Email Options menu and select another type of printing (e.g., Go to email printing).
- Use the folders drop-down menu to switch between folders.

4. The next screens let you adjust the printer settings. Make sure the correct printer is chosen. For Port, choose Bluetooth: CF Card. Make any other necessary printer settings.

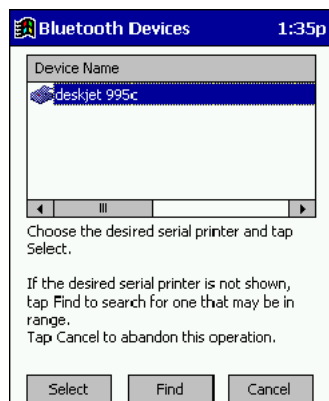


Note: For a Pocket Excel file, the first screen lets you adjust printing properties. Tap Continue to select the correct printer and port. Instead of Bluetooth: CF Card, you can choose the COM port assigned to your Bluetooth printer.

If needed, tap on More Settings to adjust margins, form feed, and other settings. Tap OK to return to the main printing screen.



When done adjusting the settings, tap Start Printing.



5. The mobile computer will search for a Bluetooth printer. After the search, the Bluetooth Devices folder will appear. Select the Bluetooth printer, then tap Select.

If the mobile computer fails to detect the Bluetooth printer, make sure the printer is on, discoverable, and in range. Tap Find to repeat the search.

6. The document will begin printing.

7. To exit the program, tap Doc Options. In the pop-up menu, tap Exit.

OBEX

This section explains how to use the OBEX (object exchange) application to trade business cards, contacts or files with another Bluetooth device that supports OBEX.

Bluetooth OBEX application supports five operations:

- Exchange Business Cards
- Send a Contact
- Send a File
- Browse Remote Device
- Receive Contact or File
- Enable File Sharing

The first four operations - exchange business cards, send a contact, send a file, and browse remote device - are client-oriented. They involve initiating an object exchange.

The last two operations - receive contact or file and enable file sharing - are server-oriented. They involve accepting objects in an exchange initiated by another Bluetooth device.

Important!

If you have not done so already, be sure to run the OBEX Installer from the Bluetooth Card Installation CD. Otherwise, you will not be able to perform any OBEX operations with the Bluetooth Card.

After you install OBEX, the Transfer via Bluetooth option will appear in the Bluetooth menu for you to select OBEX operations.

Exchange Business Cards

1. Make sure both Bluetooth devices have a business card assigned to them.

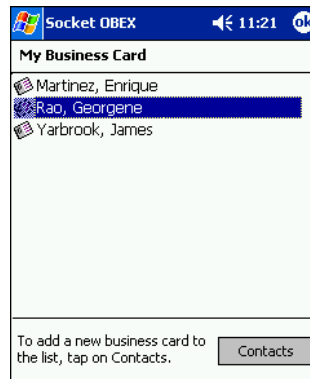
Note: If each device does not have a business card assigned to it, you will not be able to exchange business cards.

To assign a business card to your mobile computer, do the following:

- Tap on the Bluetooth icon. In the pop-up menu, tap Advanced Features | My Bluetooth Device.
- Tap on the Object Sharing tab. Under My business card, tap Assign...



- In the next screen, select your business card and tap ok. If your business card is not listed, tap on the Contacts button to create one.



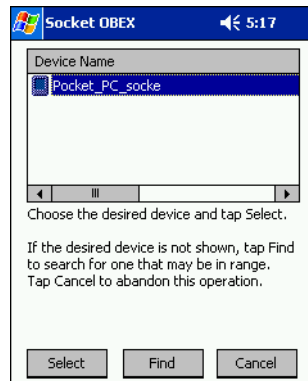
- When you return to the Object Sharing screen, tap ok.
2. Make sure the other Bluetooth device is set up to receive a contact. The device must support the OBEX Object Push profile.

Note: If the other device is also using the Bluetooth Connection Kit, you can set it up to receive a contact by tapping the Bluetooth icon. In the pop-up menu, tap Transfer via Bluetooth | Receive Contact or File.

-
- Now you are ready to exchange business cards. Tap on the Bluetooth icon. In the pop-up menu, tap Transfer via Bluetooth | Exchange Business Cards.



- If your mobile computer has no devices in the Bluetooth Devices Folder, then it will begin to search for Bluetooth devices nearby.
- Select the Bluetooth device you wish to exchange business cards with. If the device is not listed, tap Find.



- Your mobile computer will begin to exchange business cards. After the exchange, the new business card should appear in your Contacts list.



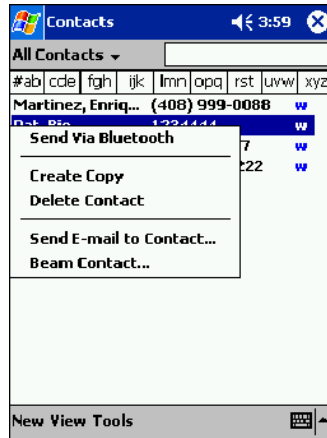
Send a Contact

- Make sure the other Bluetooth device is set up to receive a contact. It must support the OBEX Object Push server profile. Refer to the documentation that came with the device for instructions.

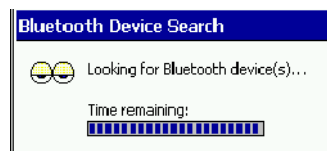
Note: If the other device is also using the Bluetooth Connection Kit, you can set it up to receive a contact by tapping the Bluetooth icon. In the pop-up menu, tap Transfer via Bluetooth | Receive Contact or File.

- Now you are ready to send a contact. Go to your Contacts folder.

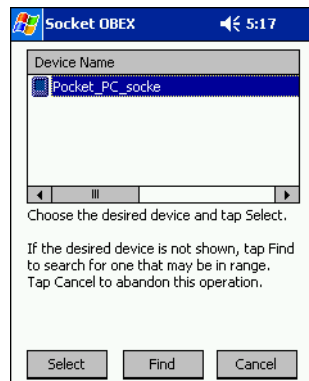
3. Tap and hold your stylus on the contact(s) you would like to send. In the pop-up menu, select Send Via Bluetooth.



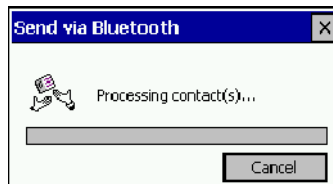
4. If your mobile computer has no devices in the Bluetooth Devices Folder, then it will begin to search for Bluetooth devices nearby.



5. Select the Bluetooth device you wish to send the contact(s) to. If the desired device is not listed, tap Find.



6. Your mobile computer will process and send the contact(s).

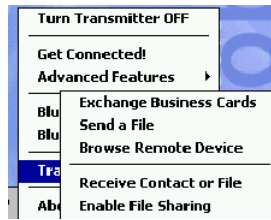


Send a File

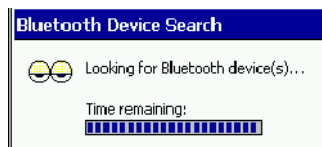
1. Make sure the other Bluetooth device is set up to receive a file. It must support the OBEX Object Push server profile. Refer to the documentation that came with the device for instructions.

Note: If the other device is also using the Bluetooth Connection Kit, you can set it up to receive a file by tapping the Bluetooth icon. In the pop-up menu, tap Transfer via Bluetooth | Receive Contact or File.

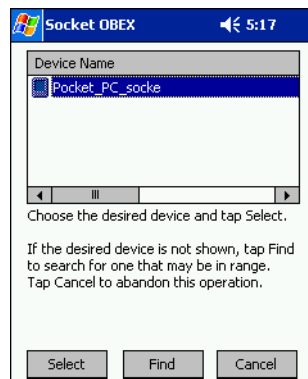
2. Now you are ready to send a file. Tap on the Bluetooth icon. In the pop-up menu, tap Transfer via Bluetooth | Send a File.



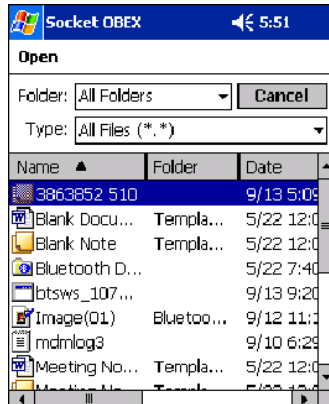
3. If your mobile computer has no devices in the Bluetooth Devices Folder, then it will begin to search for Bluetooth devices nearby.



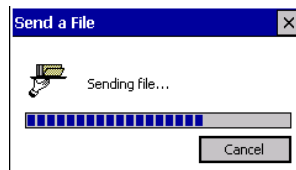
4. Select the Bluetooth device you wish to send a file. If the desired device is not listed, tap Find.



5. In the next screen, tap on the file you wish to send. You can use the Folder and Type drop-down menus to search for your file. Also, you can scroll horizontally to view the folder, date, size, type, and location of each file.



6. Your mobile computer will send the file.



Browse Remote Device

The Bluetooth File Explorer lets your mobile computer share files with another Bluetooth device. The other device must support the OBEX File Transfer server profile.

This section covers the following file transfer operations:

- Prepare for file transfer
- Send/receive file(s) or folder(s)
- Create a folder
- Delete file(s) or folder(s)
- Refresh remote view
- Connect/disconnect
- Exit the program

Note: "Local device" refers to the mobile computer you are running the OBEX from. "Remote device" refers to the Bluetooth device you are trying to transfer files with.